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J. T. TEMPLE, M.A., Ph.D.

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Tripp, R. [P.] see Harrington, H. J.

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Weller, J. M. see Harrington, H. J.

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Whittington, H. B. see Harrington, H. J.

Whittington, H. B. see Kindel, C. H.

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Zhuravleva, Z. A. (1). [On the stratigraphy of the Cambrian of the middle and lower reaches of the river Olekma.] *C. R. Acad. Sci. U.R.S.S. (ns)* 128 4 1959: 796-799 [Trilobita det. L. N. Repina] [In Russian].

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II.—SUBJECT INDEX

GENERAL LITERATURE AND HISTORY

General works.—Treatise, Harrington et al.; Trilobite evolution, Stubblefield (3); Dolerolenidae, Šdzy; Lichidae of Czechoslovakia, Vaněk (2); Little atlas of fossils, Bodylevsky; Correlation tables for Precambrian and Palaeozoic of Kazakhstan, Borukaev et al.; Cambrian and Ordovician limestones of Sweden, Hadding; Stratigraphy of W. Australia, McWhae et al.

Popular works.—Palaeozoic of Estonia, Kaljo (1); Fossil collecting, Kaljo (2).

Reference books.—Stratigraphic dictionary—Cambrian of Britain, Stubblefield (2).

Obituary.—R. & E. Richter, Gómez de Llarena, Kegel.

Abstracts.—Fritz, Jones, Kauffman, Robison, Theokritoff.

Reviews.—Last decade of palaeontology, Erben; Palaeontology and stratigraphy in Sweden, Regnéll; Snajdr 1958, Prantl.

Check lists.—Lower Cambrian trilobites and arachaeocyathids of Altai-Sayan, **Zhuravleva & Repina**; Tremadoc trilobites of Norway, **Henningsmoen**.

Preservation.—In *Elrathia kingii* preserved in siltstone the test is replaced by cryptocrystalline calcite, cone-in-cone incrustations occur on ventral surfaces, and there may be cracks parallel to thoracic axial furrows which simulate nodes on the axis, **Bright**.

Museum Collections.—Cambrian fossils of the Instituto Geológico y Minero de España, **Badillo**.

Forgeries.—Forged *Phacops latifrons*, **Schmidt**.

Revision of fauna.—Revision of faunal lists of Ferrière 1920–22, **Pillet (2)**.

Revision of nomenclature.—Validation of *Entomotrachites punctatus* Wahlenberg 1821 (by suppression of *Trilobus p.* Brünnich 1781) and designation as type of *Encrinurus* Emmrich 1844; designation of *Asaphus hausmanni* Brongniart 1822 as type of *Odontochile* Hawle & Corda 1847, **Opinion 537**; Designation of *Asaphus angustifrons* Dalman as type of *Ptychopyge* Angelin, **Opinion 538**; *Kendallia* Berg 1953 non Evermann & Shaw 1927 renamed *Kendallina*, *Mitchellia* Vogdes 1917 non de Koninck 1877 renamed *Mitchellaspis*, **Harrington et al.**

Additions to Official Lists.—*Encrinuridae* Angelin 1854, *Encrinurus* Emmrich 1844, *E. punctatus* (Wahlenberg 1821), *Odontochile* Hawle & Corda 1847, *O. hausmanni* (Brongniart 1822), **Opinion 537**; *Ptychopyge* Angelin 1854, *P. angustifrons* (Dalman 1827), **Opinion 538**.

Designation of type species.—*Encrinurus* Emmrich 1844—designation of *Entomotrachites punctatus* Wahlenberg 1821, *Odontochile* Hawle & Corda 1847—*Asaphus hausmanni* Brongniart 1822, **Opinion 537**; *Ptychopyge* Angelin 1854—designation of *Asaphus angustifrons* Dalman 1827, **Opinion 538**.

Selection of neotypes.—*Phacopidella* (Dienstina) *liopyga* Reinh. Richter, **Pfeiffer**; *Trochurus speciosus* Beyrich 1845, **Vaněk (2)**.

Selection of lectotypes.—*Acanthopyge haueri* (Barande 1846), *A. leuchtenbergii*, *A. speciosa*, *A. pulchra*, *Corydocephalus flabellatus*, *C. interjectus*, *C. propinquus*, *C. verrucosus*, *Dicranognomus pustulatus*, *Dicranopeltis aspera*, *D. granulosa* Hawle & Corda 1847 spp., *Hemiargus ambiguus* (B. 1846), *Lichas incola* B. 1856, *Platylichas kloučeki* (Růžička 1926), *Uralichas avus* (B. 1872), *U. giganteus* (Klouček 1916), **Vaněk (2)**; *Alokistocare althea* Walcott, *Anoria tontoensis* (W.), *Glossopleura mckeei* Resser, **Resser**; *Ampyx camurus* Raymond 1925, **Whittington**.

STRUCTURE

Terminology.—Term *genicranium* for dorsal cephalic shield of hypoparian forms and *Olenellida*, separated by marginal (or just supramarginal in *Conocoryphids*) suture from ventral doublural plate; *rostri-hypostomal plate* for fused rostrum and hypostome, *librigenal plate* for conjoined free cheeks, **Henningsmoen**; Several morphological terms introduced for *Remopleurids*, **Whittington**.

Glabellar furrows.—Furrows in *Remopleurids* are not depressions in the external surface but lines along which the test is thinner, **Whittington**.

Cephalic spines.—Pairs of marginal spines in protaspides of several genera; frontal glabellar spine of *Ampyx* appears suddenly in *meraspis* O, in *Ampyzina* it is gradually reduced in later development, **Whittington**.

Genal spines.—Present in Ordovician *Volkops* (*Phacopinae*), **Struve (1)**.

Genal caeca.—Cheek wrinkles on cephalo of *Agnostids* (illustrated in *Ptychagnostus*) so described and interpreted as hepatic glands, **Öpik (1)**.

Alae of Raphiophoridae considered not parts of the glabella, **Whittington**.

Eyes.—Present in Raphiophorid *Ampyzinella*, **Koroleva**.

Ventral sutures.—Median suture separating free cheeks in *Leiocoryphe*, **Rasetti**; No median or connective sutures in Raphiophoridae, **Whittington**.

Hypostome.—Comparison of hypostomes of *Remopleurides* and *Ceraurus* suggests hypothesis that hypostome of *R.* corresponds only to posterior part of that of *C.*, the anterior part of *C.* (including wing process) being represented by part of cephalic doublure in *R.*, the hypostomal sutures in the genera being not homologous; hypostomes of *Cryptolithus tessellatus* and of several Raphiophorids described and suggested not to have been in sutural contact with cephalic doublure but held closely up under glabella, **Whittington**.

Numbers of thoracic segments.—A small percentage (about 2.5) of “adult” *Elrathia kingii* specimens show up to three fewer than the normal thirteen thoracic segments, **Bright**.

Pygidium.—‘Open’ pygidium (i.e. without posterior axial doublure) described in *Saukianda* and considered in this case not a sexually dimorphic character, **Sdzuy**.

Ornamentation.—5% of *Elrathia kingii* specimens show granulation, **Bright**.

Pits.—Flat bases of pits of upper and lower lamellae of fringe of *Cryptolithus tessellatus* are in contact, opposing pits being apparently connected by a minute hole in each base, **Whittington**.

Integuments.—Several sections of limestones containing trilobite tests, **Hadding**.

Alimentary system.—Genal caeca interpreted as hepatic glands; inferred relations of glands and stomach in *Agnostids*; intestinal appendages stated to occur on thoracic segments and pygidia of *Ptychopariids*, **Öpik (1)**; Radiating punctae on internal moulds of cheeks and pygidial pleural regions of *Pseudagnostus prolongus* interpreted as caeca, **Lochman & Hu**.

Musculature.—Glabellar and pygidial muscle scars in *Pseudagnostus prolongus*, **Lochman & Hu**.

PHYSIOLOGY AND SEX

Enrolment.—Suggested that *Remopleurides similus* could not completely enrol, **Whittington**.

Sexual dimorphism.—Three suggested cases in Upper Cambrian forms in which the inferred female has an occipital spine and different glabellar convexity—*Arapahoe neihartensis* & *A. aspinosa*, *Cedarina cordilleræ* & *C. prima*, *Minkella americana* ♀ & ♂, **Lochman & Hu**; Dimorphism (narrow/broad) in mature pygidia of *Weberides mucronatus* analysed biometrically and considered sexual, **Rehóř & Řehořová**; *Remopleurides eximius* and *R. simulus* may be dimorphs, **Whittington**; 'Open' pygidium considered not a sexually dimorphic character in *Saukianda*, **Sdzuy**.

DEVELOPMENT

Ontogeny.—Protaspides and later developmental stages of spp. of *Remopleurides* (protaspis enrolled, with fixigonal and anterior cephalic spines), *Cryptolithus*, *Tretaspis* (referred protaspis with 3 pairs of marginal spines), *Raphiophoridae* (referred protaspis of *Ampyz* has 2 pairs of marginal spines; frontal glabellar spine appearing in meraspis O), **Whittington**; Immature stages of *Idahoia*, *Minkella* and *Ptychaspis*, **Lochman & Hu**; Immature stages of *Prosauckia corrugata* (smallest observed cranidium is only 0.3 mm. long), **Rasetti**.

Ecdysis.—Sample of 339 *Elrathia kingii* does not show instars, **Bright**.

EVOLUTION AND CLASSIFICATION

Evolution.—General discussion of trilobite evolution; suggested examples of neoteny and gerontism, **Stubblefield** (3).

Phylogeny.—Possible relations of Granulariidae and Asaphoidea, **Suvorova** (1).

Abundance.—Charts of subfamily abundance, **Stubblefield** (3).

Homeomorphy.—Several examples discussed, **Stubblefield** (3).

Biometry.—All possible combinations in pairs of 6 dimensions on 4 Poulsen 1932 spp. of *Proliostracus* show rectilinear relations; concluded that spp. represent growth-stages of a single sp. *P. strenuiformis* of which the others are considered synonyms, **Shaw**; Study of sample of 339 *Elrathia kingii*, rectilinear relations between dimensions plotted, **Bright**; Pygidial dimorphism (narrow/broad) in *Weberides mucronatus* analysed, **Řehoř & Řehořová**.

ECOLOGY AND HABITS

Ecology.—Ecology of a *Ptychaspis* faunule discussed; indigenous unsorted benthos, more or less extraneous mechanically sorted benthos, and plankton distinguished, **Lochman & Hu**.

Habits.—General account of crawling, grazing, burrowing and tunnelling; spinous forms (as *Acidaspis*) considered too large to be planktonic, **Seilacher**; *Elrathia kingii* inferred to have inhabited calm shallow water on a calcareous silty bottom, **Bright**; *Kootenia* and *Solenopleurella* restricted to limestones, *Elrathia* to fine sands and silts, *Alokistocare* and *Glossopleura* more tolerant, **McKee**.

Trails.—Walking trail possibly attributable to trilobites, **Opik** (2); **McKee**.

Migration.—Lower Cambrian faunal affinities between Poland, Britain and Western Mediterranean, **Samsonowicz** (3).

DISTRIBUTION AND FAUNAS

Cambrian.—Britain, **Stubblefield** (2); Canada (Rocky Mts.), **North & Henderson**; Spain, **Badillo**; U.S.S.R. (N. W. Siberia), **Miroshnikov et al.**; U.S.S.R. (W. Siberia), **Petrakov**.

Cambrian (Lower).—Greenland (East), **Shaw**; Poland (Holy Cross Mts.), **Samsonowicz** (1), (2), (3); Spain (León, Andalusia), **Sdzuy**; U.S.A. (New York), **Theokritoff**; U.S.S.R. (Altai), **Zhuravleva et al.** (2); U.S.S.R. (Siberia), **Z. A. Zhuravleva** (1), (2); U.S.S.R. (S. Siberia), **Semikhatov**; U.S.S.R. (Tuva, Sayan etc., Yakutia), **Pokrovskaya**; U.S.S.R. (Yakutia), **Suvorova** (2).

Cambrian (Lower & Middle).—Australia (S. Australia), **Glaessner & Parkin**; U.S.A. (Arizona), **McKee, Resser**; U.S.S.R. (Altai-Sayan), **Zhuravleva & Repina**; U.S.S.R. (Sayan), **Anatol'eva & Shelkovnikov**; U.S.S.R. (S. Siberia), **Zhuravleva et al.** (1).

Cambrian (Middle).—Argentina (Mendoza), **Rusconi**; Poland (Holy Cross Mts.), **Orłowski** (1), (2), (3); U.S.A. (Montana), **Kauffman**; U.S.A. (Utah), **Bright**; U.S.S.R. (N. Siberia), **Lazarenko**.

Cambrian (Middle & Upper).—Canada (W. Newfoundland), **Kindle & Whittington**; China (North), **Manchuria, Chang**.

Cambrian (Upper).—Britain (N. Wales), **Shackleton, Stubblefield** (1); U.S.A. (Colorado), **Berg & Ross**; U.S.A. (Idaho, Texas), **Lochman & Hu**; U.S.A. (Md, Pa, Va), Canada (Quebec), **Rasetti**; U.S.A. (Utah), **Robison**; U.S.S.R. (Kazakhstan), **Ivshin**.

Ordovician.—China, **Lu**; Czechoslovakia (boulders), **Strnad** (3), (5), (7), (8); Germany (Thuringia), **Struve** (1); Nepal, **Bordet et al.**; U.S.S.R., **Lesnikova & Weber**; U.S.S.R. (N. W. Siberia), **Miroshnikov et al.**

Ordovician (Lower).—Canada (Rocky Mts.), **North & Henderson**; Norway, **Henningsmoen**; Sweden (Scania), **Tjernvik**; U.S.A. (Colorado), **Berg & Ross**; U.S.S.R. (Baltic, Kazakhstan), **Balashova & Balashov**.

Ordovician (Lower & Middle).—Britain (N. Wales), **Shackleton**; U.S.S.R. (W. Siberia), **Petrakov**.

Ordovician (Middle).—Canada (Ontario), **Colquhoun**; U.S.A. (mainly Virginia), Britain (Scotland), **Whittington**.

Ordovician (Middle & Upper).—Britain (N. England), **Dean** (1); Canada (Arctic), **Thorsteinsson**; Czechoslovakia, **Vaněk** (3); U.S.S.R. (Arctic), **Balashova** (1), (2); U.S.S.R. (Kazakhstan), **Koroleva**.

Ordovician (Upper).—Britain (N. England, Wales), **Dean** (2); Czechoslovakia, **Vaněk** (1); Eire, **Weir**; Estonia, **Männil**.

Ordovician or Silurian.—Canada (Manitoba), **Williams**.

Silurian.—Canada (Arctic), **Thorsteinsson**; Czechoslovakia (boulders), **Strnad** (8); U.S.S.R., **Lesnikova & Weber**; U.S.S.R. (N. W. Siberia), **Miroshnikov et al.**

Silurian (Lower).—Spain (Gerona), **Sampelayo**; **Suñer Coma & Fernández de Villalta**; U.S.S.R. (Arctic), **Balashova** (1), (2).

Silurian (Middle).—Japan (Kyushu), **Hamada**.

Silurian (Middle & Upper).—Britain (Wales), **Walmsley**.

Silurian (Upper).—Britain (W. England), **Holland et al.**; Britain (Wales), **Holland**; Czechoslovakia, **Vaněk** (1), (2).

Devonian.—Canada (Arctic), **Thorsteinsson**.

Devonian (Lower).—Czechoslovakia, **Vaněk** (2); France (Anjou), **Pillet** (1), (2); Spain (Gerona), **Suñer Coma & Fernández de Villalta**.

Devonian (? Lower).—U.S.S.R. (Sikhote Alin), **Maksimova & Organova**.

Devonian (Lower & Middle).—Germany (Eifel), **Paulus**.

Devonian (Middle).—Belgium (Liège), **Monseur**; Canada (Arctic), **McLaren**; Czechoslovakia, **Strnad** (1); Czechoslovakia (Silesia), **Strnad** (2), (4), (6); France (Haute Garonne), **Struve** (2); U.S.A. (Nevada), **Jones**.

Devonian (Upper).—Britain (S. W. England), **Dearman & Butcher**; Germany (Thuringia), **Pfeiffer**; Poland (Silesia), **Lewowicki**.

Carboniferous.—U.S.S.R. (European), **Ivanova**.

Carboniferous (Lower).—Britain (Eire), **Caldwell**; Poland (Silesia), **Lewowicki**.

Carboniferous (Upper).—Czechoslovakia (Silesia), **Rehoř & Rehořová**.

Permian.—Japan (Fukushima), **Yanagisawa**.

III.—SYSTEMATIC INDEX

N.B.—Since all the species of the group are fossil, the † used elsewhere in the Zoological Record to indicate fossils is here omitted.

Abadiella Hupé 1952 [sic] discussed and referred to *Doleroleninae* p. 398, **Sdzuy**.

Abadiellidae Hupé 1952 [sic] a synonym of *Doleroleninae* p. 398, **Sdzuy**.

Acanthaloma sp. p. 78, **Lu**.

Acanthaloma sp. p. 103, **Pillet** (2).

Acanthoparypha chiropyga p. 384, *A. perforata* p. 385 ff., *A. sp.* p. 387, **Whittington**.

Acanthopyge Hawle et Corda 1847 discussed p. 119, *A. haueri* (Barrande 1846) lectotype selected and figured excluding records of Maurer 1880 and Novák 1890 and with synonym *A. leuchtenbergii* H. & C. of which lectotype selected and figured p. 120 pl. v figs. 1–7, pl. vi figs. 3–6, text-figs. 14–17 [*A. aff. h.* of Chlupáč & Vaněk 1957 referred to *Lobopyge docekali* sp. n. p. 125], *A. parva parva* (Barrande 1846) holotype [= *Lichas h.* of B. 1852 *partim* (pl. 28 fig. 38)] refigured with synonym *L. parvula* Novák 1890

(excluding records of *parvula* by Richter 1909 and cf. p. of R. & E. R. 1917) p. 125 pl. vi figs. 1–2; *A. pulchra* pl. ix fig. 9 and *A. speciosa* pl. viii fig. 10 H. & C. spp. lectotypes chosen and figured and synonyms of *Trochurus speciosus* p. 147, **Vaněk** (2).

Acaste downingiae (Murchison) p. 514, **Walmsley**.

Acaste (Acastella) rouaulti (de T. et L.) p. 18 ff., **Pillet** (1).

Acastella see *Acaste*.

Acastinae see *Duftonia* gen. n.

Acastoides cf. henni posthuma (R. and E. Richter) p. 342, **Paulus**.

"*Acidaspis*" cf. *asteroidea* Reed p. 218, **Dean** (1).

"*Acidaspis*" *ulrichi* Baesler so referred and stated to be Upper Cambrian in age and to have conjoined free cheeks p. 393 pl. li fig. 27, **Rasetti**.

"*Acidaspis*" *ulrichi* p. 17, **Kindle & Whittington**.

Acidaspis sp. p. 514, **Walmsley**.

Acrocephalaspis gen. n. [no family assigned] p. 107 for type *A. fidus* sp. n. p. 109 pl. i figs. 1, 2, 2a Cambrian (Upper) U.S.S.R. (Kazakhstan), **Ivshin** Izv. Acad. Sci. Kazakhstan S.S.R. [Geol.] 21 1955.

Acrocephalites sp. n. [undescribed] p. 360, **Miroshnikov et al.**

Acrocephalops see *Bolaspididae* fam. n.

Acrocephalops ? arizonaensis sp. n. p. 203 pl. xxvi fig. 11 Cambrian (Middle) U.S.A. (Arizona), **Resser** Publ. Carneg. Instn No. 563 1945.

Aerolichas punctatus Weber 1948 p. 304 pl. lxxx figs. 13a–14, **Lesnikova & Weber**.

Actinopeltis caudata n. sp. [nom. nud.] p. 74 Ordovician China, **Lu**.

Adiaksis [nom. nud.] sp. p. 1032, **Zhuravleva et al.** (2).

Aeglina rediviva record of Bailly 1862 referred to *Phylacops bituberculatus* sp. n. p. 377, **Weir**.

Agnostacea discussed p. 152, **Stubblefield** (3).

Agnostids—genal caeca described on cephal and similar structures on pygidia p. 1750, **Öpik** (1).

Agnostids p. 1686, **Theokritoff**.

Agnostus bidens Meek p. 84, **Bright**.

Agnostus calvus (Lake) p. 223, *A. sp.* p. 222, **Shackleton**.

Agnostus pisiformis Linn. p. 117 (pl. 43) fig., *A. integer* Beyr. p. 118 (pl. 44) fig., **Badillo**.

"*Agnostus*" sp. p. 47, **Vaněk** (3).

Agnostus sp. undet. p. 380 pl. li fig. 10, **Rasetti**.

Agraulus [sic] (*Arionellus*) *ceticephalus* Barr. p. 109 (pl. 35) fig., **Badillo**.

Alacelus Repina [nom. nud.] range in Altai-Sayan pl. i, **Zhuravleva & Repina**.

Alataja Poletaeva [nom. nud.] range in Altai-Sayan pl. i, **Zhuravleva & Repina**.

Albertella schenki sp. n. p. 195 pl. xx fig. 18 Cambrian (Middle) U.S.A. (Arizona), **Resser** Publ. Carneg. Instn No. 563 1945.

Aldonaia Lerm. 1940 discussed p. 89, *A. cf. ornata* L. p. 90 pl. viii fig. 16, *A. shanganica* sp. n. p. 91 pl. viii figs. 14, 17, *A. punctuosa* sp. n. p. 93 pl. viii figs. 3, 6 Cambrian (Lower) U.S.S.R. (Tuva), **Pokrovskaya** Trud. geol. Inst. S.S.S.R. 27 1959.

Aldonaidae see *Eleganolimba* and *Tuvanella* **genn. n.**

Alokistocare althea Walcott lectotype selected and figured p. 203 pl. xxii figs. 6-11, *A. sp. undet.* p. 203 pl. xxii fig. 5, **Resser**.

Alokistocare elongatum Poulsen discussed p. 9, **Rusconi**.

Amecephalina range in Altai-Sayan pl. i, **Zhuravleva & Repina**.

Amecephalina sp. p. 1033, **Zhuravleva et al. (2)**.

Amecephalus mendozanus (Rusc.) discussed p. 9, **Rusconi**.

Amphilichas batchaticus Weber 1928 p. 304 pl. lxxviii figs. 3a-c, **Lesnikova & Weber**.

Amphilichas holmi (Schm.) p. 7, *A. lineatus* Ang. p. 11, **Männil**.

Amphilichas pandus p. 384, **Whittington**.

Ampyx depressus (Angelin) var. *otradnica* var. nov. pl. i figs. 20-23, *A. nordicus* sp. nov. pl. vi figs. 1-5, *A. borealicus* sp. nov. pl. vi figs. 8-9, **Balashova (1)**.

Ampyx nasutus Dalman 1826 p. 276 pl. lxxv figs. 9, 10a-b, **Lesnikova & Weber**.

Ampyx rugosus Kolova type of *Ampyxinella* **gen. n.** p. 1314, **Koroleva**.

Ampyx virginianensis Cooper 1953 morphology and ontogeny (including protaspis) described p. 465 pl. xxix figs. 1-16, pl. xxx figs. 1-14, 16-17, 20-30, pl. xxxi figs. 1-2 [? attribution p. 464], 3-32, text-figs. 7A-B (reconstr.), *A. camurus* Raymond 1925 lectotype selected [pl. expl.] and figured p. 469 pl. xxx figs. 15, 18-19, **Whittington**.

Ampyxina Ulrich 1922 discussed, *A. bellatula* (Savage 1917) holotype refigured p. 481 pl. xxxiv figs. 1-2, *A. powelli* (Raymond 1920) morphology and ontogeny p. 482 pl. xxxiv figs. 3-13, pl. xxxv figs. 1-25, *A. lanceola* sp. n. including *A. elegans* Cooper 1953 *partim* (pl. 4 figs. 10-11) Ordovician (Middle) U.S.A. (Virginia) p. 486 pl. xxxiv figs. 14-28, pl. xxxv figs. 26-35, *A. aldonensis* (Reed 1935) p. 487 pl. xxviii figs. 10-11, 13; *A. elegans* C. 1953 restr. [non pl. 4 figs. 10-11 to *A. l.*, figs. 13, 17 to *Tretaspis sagenosus*] referred to *Raymondella* p. 488, as is *A. sp. C.* 1953 p. 490, **Whittington** Bull. Mus. comp. Zool. Harv. 121 8 1959.

Ampyxina biloba Chugaeva referred to *Ampyxinella* **gen. n.** p. 1315, **Koroleva**.

Ampyxina taimyrica sp. nov. pl. vi figs. 10-14, **Balashova (1)**.

Ampyxinella **gen. n.** [Raphiophoridae (Ampyxinellinae)] p. 1314 for type *Ampyx rugosus* Kolova 1936 pl. figs. 1a-6, text-fig. 4a, *A. balashova* sp. n. [nom. nud.] pl. figs. 1a, z, *A. ruslani* sp. n. [nom. nud.] pl. fig. 1b, *A. rugosa* var. *namusi* var. nov. [nom. nud.] pl. fig. 1e, *A. biloba* (Chugaeva) for *Ampyxina* b. C. p. 1315 Ordovician (Middle & Upper) U.S.S.R. (Kazakhstan), **Koroleva** C. R. Acad. Sci. U.R.S.S. (ns) 124 6 1959.

Ampyxinellinae [misspelt Alpyxiinellinae at descr.] **subfam. n.** [Raphiophoridae] for *Ampyxinella* **gen. n.** p. 1314, **Koroleva** C. R. Acad. Sci. U.R.S.S. (ns) 124 6 1959.

Anabaraspis sp. p. 5, **Lazarenko**.

Anadozides Matthew 1899 a synonym of *Metadozides* p. 397, **Sdzuy**.

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Anomocare Angelin 1852—attention drawn to Vogdes' designation of *A. aculeatum* (Angelin) as type p. 287, **STUBBLEFIELD** in **Harrington et al.**

Anomocare see *Szeaspis* **gen. n.**

Anomocare parvula Weller reference to *Bowmania* unconvincing p. 396, **Rasetti**.

Anomocarella tumida Endo 1944 apparently referred to *Metanomocarella* **gen. n.** q. v. [though not as type] and *Aojia tumida* [Resser &] Endo 1937 may be a synonym p. 218, **Chang**.

Anomocarellidae see *Luia* **gen. n.**

Anomocaridae see Olenina.

Anomocarina sp. indet. p. 359, **Miroshnikov et al.**

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Antagmidae see *Lermontoviella* **gen. n.**

Antagmus arizonaensis sp. n. p. 205 pl. xix figs. 27-28 Cambrian (Lower) U.S.A. (Arizona), **Resser** Publ. Carneg. Instn No. 563 1945.

Aojia tumida [Resser &] Endo 1937 may belong to *Anomocarella tumida* E. 1944 which is referred to *Metanomocarella* **gen. n.** [quod vide] p. 218, *A. longispina* R. & E. attributed pygidium (1937 pl. 47 fig. 2) belongs to *Taitzia* p. 223, **Chang**.

Apatocephalus assai Weber 1932 p. 275 pl. lxxv fig. 2, **Lesnikova & Weber**.

Apatocephaloides minor sp. n. p. 387 pl. lv figs. 29-32, *A. macrops* sp. n. p. 388 pl. lv figs. 24-28 Cambrian (Upper) U.S.A. (Maryland), *A. sp. undet.* p. 378, **Rasetti** J. Paleont. 33 3 1959.

Apatocephalus serratus (Boeck) listed p. 174, **Henningsmoen**.

Apatocephalus serratus (Boeck) p. 274, **Tjernvik**.

Apatocephalus serratus Sars et Boeck p. 144, **Balashova & Balashov**.

Apatokephalus yini n. sp. [nom. nud.] p. 88 *Ordovician China, Lu*.

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Aristoharpes taimyricus sp. nov. pl. v figs. 20-21, **Balashova (1)**.

Aristoharpes sp. p. 1548, **Bordet et al.**

Asaphellus alimbeticus **Bal.** [not seen] p. 144; *Ptychopyge* ? *inostranzewi* **Lamansky** 1905 belongs to *A. p. 145, Balashova & Balashov*.

Asaphellus homfrayi (**Salter**) p. 223, **Shackleton**.

Asaphellus inflatus n. sp. p. 33, *A. nanchuangensis* n. sp. p. 37 [nom. nuda] *Ordovician (Lower) China, Lu*.

Asaphid p. 233 ff., **Shackleton**.

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Asaphids p. 384 ff., **Whittington**.

Asaphiscus—spp. of **Resser & Endo** 1937 discussed and the following referred to *Liaoyangaspis* gen. n. [quod vide]: *bassleri* (with synonym *kobayashii*) [type of *L.*], *walcottii* restr. (excluding *R. & E. pl. 43 fig. 6 to L. endo: sp. n.*, & **Lu** 1957 to *L. wangi sp. n.*), *peiensis*, & *tsutsumii* (**E.** 1937) p. 220; *A. iddingsi* **Walcott** referred to *Szeaspis* gen. n., *A. cf. i.* of **Chang** 1957 to *S. reticulatus sp. n.* p. 230, **Chang**.

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A. nieszkowskii **S.** 1898 p. 287 pl. lxxii fig. 9, *A. n. mut. jewensis* pl. lxxii fig. 8, **Lesnikova & Weber** *Atlas of the leading forms of the fossil faunas of the USSR Volume II* 1949.

Asaphus angustifrons **Dalman** 1827 designated as type of *Ptychopyge* **Angelin** and placed on *Official List of Specific Names p. 59, Opinion 538*.

Asaphus hausmanni **Brongniart** 1822 placed on *Official List of Specific Names and designated type of Odontochile* **Hawle & Corda** 1847 p. 43, **Opinion 537**.

Asaphus powisi **Murch.** p. 235, **Shackleton**.

Asaphus ? sp. p. 1548, **Bordet et al.**

"*Asperocare*" *argentinum* **Poulsen** discussed and may belong to *Chilometopus* p. 8, **Rusconi**.

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Asthenaspis [misspelt *Astenaspis* on pl. expl.] gen. n. [Redlichiiidae] p. 74 for type *A. tenuis* sp. n. p. 75 pl. vi figs. 10-16 text-figs. 5a-s *Cambrian (Lower) U.S.S.R. (Yakutia), Suvorova Paleont. Zhurnal 1959 3*.

Atractopyge aff. *aspera* (**Linnarsson**) p. 207 ff., *A. sp.* pp. 206, 218, *A. sp. ind.* p. 214, **Dean (1)**.

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Basilius kegelensis (**Schmidt**) 1898 p. 289 pl. lxxiv figs. 3-4, *B. nobilis* (**Barrande**) 1846 p. 289 pl. lxxiii figs. 4a-b, **Lesnikova & Weber**.

Basilius tyrannus (**Murchison**) 1837 p. 30 pl. ii figs. 1-2, **Balashova (1)**.

Bathynotidae see *Bathynotina subord. n.*

Bathynotina subord. n. [Redlichiiidae] p. 216 for *Bathynotidae*, **Lochman-Balk** *Treatise on Invertebrate Paleontology Part O* 1959.

Bathynotus lamanensis **Lerm.** p. 798, **Z. A. Zhuravleva (1)**.

Bathyriscellus see *Jakutidae fam. n.*

Bathyriscina tannu-olae nov. gen. sp. nov. [nom. nud.] [Corynexochidae] p. 16, **O. K. POLETAeva** in **Pokrovskaya**.

Bathyriscus cf. *adacus* text-fig. 3k, **Kindle & Whittington**.

Bathyriscus ? sp. [det. **O. K. Poletaeva**] p. 16, **Pokrovskaya**.

Bathyrus ingalli **Raymond**, *B. spiniger* (**Hall**), *B. trispinosus* **Wilson** p. 85 ff., *B. aff. bandifer* **Sinclair** p. 91, **Colquhoun**.

Bathyrus sp. **A.**, *B. sp. B* [both undeser.] p. 39, **Thorsteinsson**.

Bayfieldia text-fig. 3c, **Kindle & Whittington**.

- Bayfieldia* sp. undet. p. 388 pl. lv figs. 20-23, **Rasetti**.
- Bellaspis* ? *oblonga* sp. n. Cambrian (Upper) U.S.A. (Idaho) p. 413 pl. lvii figs. 23-24, **Lochman & Hu** J. Paleont. **33** 3 1959.
- Bellefontia* sp. cf. *B. chamberlaini* Clark p. 113 pl. xxi figs. 18, 20, 22, **Berg & Ross**.
- Bergeroniaspis* Lermontova 1951 discussed with synonym *Olekmaspis* Suvorova and referred to Protoleninae p. 45, *B. shanganus* sp. n. p. 46 pl. ii figs. 5-6, 8-10, 16, *B. lebedevae* sp. n. p. 50 pl. ii figs. 4, 7, *B. sisovae* sp. n. p. 52 pl. ii figs. 15, 17, *B. cf. s. p. 32*, *B. argutus* sp. n. p. 54 pl. ii figs. 3, 12, *B. zaicevi* sp. n. p. 56 pl. ii fig. 13 Cambrian (Lower) U.S.S.R. (Tuva), *B. sp. p. 29*, **Pokrovskaya** Trud. geol. Inst. S.S.S.R. **27** 1959.
- Bergeroniaspis* Lermontova 1951 referred to Lermontoviidae; *B. procerca* & *B. nitens* Suvorova excluded p. 395, **Sdzuy**.
- Bergeroniaspis* range in Altai-Sayan pl. i, **Zhuravleva & Repina**.
- Bergeroniaspis ornatus* Lerm., *B. divergens* L. p. 1372, **Z. A. Zhuravleva** (2).
- Bergeroniellus* Lermontova 1940 referred to Lermontoviidae p. 395, **Sdzuy**.
- Bergeroniellus divergens* Lerm., *B. kutorginorum* L., *B. ornatus* L. p. 798, **Z. A. Zhuravleva** (1).
- Bigotina* Cobbold 1935 age considered probably lower L. Cambrian p. 402, **Sdzuy**.
- Bigotiniinae Hupé 1952 [sic] discussed and referred to Dolerolenidae, taken to include *Bigotina*, *Bigotinops*, *Pruvostina*, *Oujjania*, ? *Pruvostinoides*, ? *Yunnanoccephalus* p. 400, **Sdzuy**.
- Bigotinops* Hupé 1952 [sic] referred to Bigotiniinae p. 401, **Sdzuy**.
- Billingaspis adamsii* formula of glabellar dimensions p. 481, **Shaw**.
- Binodaspis* range in Altai-Sayan pl. i, **Zhuravleva & Repina**.
- Blackvelderia* see *Prodamesella* gen. n.
- Blackvelderia*—list of spp. of *Damesella* & *B.* showing increase in no. of pygidial spines p. 233, *B. octaspina* [recte *octospina*] Resser & Endo 1937 with synonym *D. octaspina* Kobayashi 1935 p. 233, **Chang**.
- Boeckaspis kasachstanicus* Bal. [not seen] p. 144, **Balashova & Balashov**.
- Bohemopyge* see *Niobinae* subfam. n.
- Bolaspidella housensis* (Walcott) p. 84, **Bright**.
- Bolaspidae* fam. n. [Norwoodiacea] p. 304 for *Bolaspis*, *Acrocephalops*, *Eldoradia* and *Ravtinskella*, **Howell** Treatise on Invertebrate Paleontology Part O 1959.
- Bolaspis* see *Bolaspidae* fam. n.
- Bolaspis aemula* sp. n. p. 204 pl. xxii fig. 15 pars, pl. xxiii figs. 1-2, *B. ?* sp. undet. p. 204 pl. xix fig. 4
- pars Cambrian (Middle) U.S.A. (Arizona), **Resser** Publ. Carneg. Instn No. 563 1945.
- Bonnia* Walcott discussed, *B. sisovae* sp. n. p. 135 pl. x figs. 5-6, *B. asiatica* sp. n. p. 137 pl. x figs. 4, 11, 14, *B. dubia* [misspelt *ubia* on pl. expl.] sp. n. p. 140 pl. x fig. 8 Cambrian (Lower) U.S.S.R. (Tuva), **Pokrovskaya** Trud. geol. Inst. S.S.S.R. **27** 1959.
- Bonnia* range in Altai-Sayan pl. i, **Zhuravleva & Repina**.
- Bonnia* sp. p. 1686, **Theokritoff**.
- Bonnia* sp. p. 1032, **Zhuravleva et al.** (2).
- Borogothus* see *Promegalaspides*.
- Borogothus* see *Promegalaspidae* subfam. n.
- Bowmania pennsylvanica* sp. n. p. 395 pl. lv figs. 1-5 text-fig. 1 Cambrian (Upper) U.S.A. (Pa, ? Md); reference of *Anomocare parvula* Weller to *B.* unconvincing p. 396, **Rasetti** J. Paleont. **33** 3 1959.
- Briscoia celtica* (Salter) horizon discussed p. 222, **Shackleton**.
- Broeggerolithus harnagensis* (Bancroft) p. 233 ff., *B. cf. h. p. 249*, *B. souldleyensis* (B.), *B. broeggeri* B., *B. sp. p. 235*, **Shackleton**.
- Broeggerolithus nicholsoni* (Reed), *B. aff. n. p. 214*, *B. cf. n. p. 206*, *B. transiens* (Bancroft), *B. sp. p. 207*, **Dean** (1).
- Brongniartella* see *Homalonotus*.
- Brongniartella bisulcata* (Salter) p. 235ff., **Shackleton**.
- Brongniartella* cf. *parva* Harper, *B. cf. rudis* (McCoy) p. 206, *B. bisulcata* (McCoy), *B. sp. ind.* (small) p. 207, *B. cf. b.*, *B. sp. ind. p. 214*, *B. sp. nov.*, *B. sp. (? nov.)* [both undescried] p. 208, *B. ascripta* (Reed) p. 214, **Dean** (1).
- Bronteidae see *Thysanopeltidae*.
- Bronteopsis scotica* Etheridge et Nicholson pl. v figs. 13-16, *B. nannus* sp. nov. pl. v figs. 17-18, **Balashova** (1).
- Bronteopsis scotica* Nicholson et Etheridge p. 29 [pl. v figs. 13-16], *B. nannus* sp. n. p. 32 [pl. v figs. 17-18] Ordovician (Middle) U.S.S.R. (Arctic), **Balashova** Sborn. stat. paleont. biostrat. **15** [pls. in **14**] 1959.
- Bronteopsis sola* (Barr.) for *Ogygia* s. B. 1872 p. 215, **Vaněk** (1).
- Bronteus aculeatus* Weber type of *Weberopeltis* gen. n. [quod vide].
- Bronteus romanovskii* Weber 1948 p. 298 pl. lxxxix figs. 2a-b, *B. aculeatus* W. 1945 p. 298 pl. lxxxix figs. 1a-b, **Lesnikova & Weber**.
- Bulaispis peleducicus* Repina, *B. vologdini* Lerm., *B. primus* L. p. 797, **Z. A. Zhuravleva** (1).
- Bulaispis tasevici* Rep., *B. primus* Lerm., *B. vologdini* L., *B. manicus* R. [nom. nud.] p. 1372, **Z. A. Zhuravleva** (2).
- Bullaglabellaspis* Repina [nom. nud.] range in Altai-Sayan pl. i, **Zhuravleva & Repina**.

Bumastides bedpakensis Weber 1948 p. 291 pl. lxxxi figs. 1-4, **Lesnikova & Weber**.

Bumastus barriensis Murchison 1839 p. 297 pl. lxxviii figs. 7a-b, *B. nudus* (Angelin 1854) p. 297 pl. lxxviii fig. 8, *B. milleri* Billings 1859 p. 297 pl. lxxviii figs. 9a-b, **Lesnikova & Weber**.

Bumastus holei Foerste var. *taimyrica* var. nov. pl. iii figs. 20-22, *B. taimyricus* sp. nov. pl. iii figs. 23-29, *B. nordicus* sp. nov. pl. iii figs. 30a-r, **Balashova (1)**.

Bumastus holei Foerste var. *taimyrica* var. n. Ordovician (Upper) p. 45 [pl. iii figs. 20-22], *B. nordicus* sp. n. p. 46 [pl. iii figs. 30a-r], *B. taimyricus* sp. n. p. 48 [pl. iii figs. 23-29] Silurian (Lower) U.S.S.R. (Arctic), **Balashova** Sborn. stat. paleont. biostrat. 15 [pls. in 14] 1959.

Bumastus sp. A, B. sp. B p. 36, B. sp. C [all undescr.] p. 37, **Thorsteinsson**.

Calipernurus insolitus p. 385, **Whittington**.

Callavia see *Callaviinae* subfam. n.

Callaviinae subfam. n. [Olenellidae] p. 192 for *Callavia*, *Judomia*, *Kjerulfia*, **Poulsen** Treatise on Invertebrate Paleontology Part O 1959.

Calliops narrawayi Okulitch p. 91, **Colquhoun**.

Calliops sp. cf. *C. narrawayi* Okulitch p. 39, **Thorsteinsson**.

Calliops strasburgensis, *C. callirachis* p. 385, *C.* sp. p. 386, *C. lozorachis* p. 387, **Whittington**.

Calliops taimyricus sp. nov. pl. v figs. 9-12, **Balashova (1)**.

Calodiscus lobatus p. 1686, **Theokritoff**.

Calymene ex gr. *blumenbachi* Brongn. p. 594 text-fig. 1a, *C. macrocephala* Maksimova [nom. nud.] text-fig. 16, C. sp. text-fig. 1s, **Maksimova & Organova**.

Calymene neointermedia R. & E. Richter p. 1039, **Holland et al.**

Calymene neointermedia R. & E. Richter, *C.* sp. p. 514, **Walsley**.

Calymene taimyrica sp. nov. pl. i figs. 11-14, **Balashova (1)**.

Calymene taimyrica sp. n. p. 52 [pl. i figs. 11-14] Silurian (Lower) U.S.S.R. (Arctic), **Balashova** Sborn. stat. paleont. biostrat. 15 [pls. in 14] 1959.

Calymene tenera Barrande referred to *Platycalymene* p. 215, **Vaněk (1)**.

Calymene tuberculata Bruennich 1885 [sic] p. 324 pl. xxvii figs. 7-8, **Strnad (8)**.

Calymene tuberculata (Brünnich 1781) p. 306 pl. lxxxi fig. 9, **Lesnikova & Weber**.

Calymene sp. p. 477, **Holland**.

Calymene sp. p. 235 ff., "C." sp. p. 233, **Shackleton**.

Calymene sp. A [undescr.], *C.* sp. p. 50, **Thorsteinsson**.

Calymenella (*Eohomalonotus*) *bohemicus* (Barr.) p. 48, **Vaněk (3)**.

Calymenid pygidium, *Calymenid pygidium* ind. p. 207, **Dean (1)**.

Calypptaulax (Subgen. A) for *Homalops* Remelé 1885 (non Motschulsky 1850) p. 492, **Struve in Harrington et al.**

Calypptaulax calderi Wilson p. 91, *C.* aff. c. p. 88, **Colquhoun**.

Calypptaulax aff. *norvegicus* Størmer p. 207 ff., **Dean (1)**.

Caphyra taimyrica sp. n. p. 28 pl. i fig. 7, *C. ? kluevkaensis* sp. n. p. 28 pl. i fig. 1 Ordovician (Upper) U.S.S.R. (Arctic), **Balashova** Sborn. stat. paleont. biostrat. 14 1959.

Carinopyge spinifera sp. nov. pl. iv figs. 18a-r, **Balashova (1)**.

Catadoxides Matthew 1899 discussed and considered not a *Dolerolenid* p. 398, **Sdzuy**.

Cedarina prima Lochman 1944 & *C. cordillerae* (Howell & Duncan 1939) considered ♂ & ♀ of one sp. p. 415, **Lochman in Lochman & Hu**.

Centropleura sp. p. 359, **Miroshnikov et al.**

Ceratarges see *Lichas*.

Ceratarges sp. p. 349, **Paulus**.

Ceratarginae Tripp 1957 discussed and taken to include *Hemiarges*, *Perunaspis*, *Lobopyge*, *Acanthopyge*, *Eiffiarges*, *Radiolichas*, *Ceratarges*, *Craspedarges*, *Acantharges* p. 118 [also *Trochurus* p. 144]; *Dicranogmus* referred to *Lichaina* p. 116, **Vaněk (2)**.

Ceratevenkaspis pentagonus sp. nov. pl. iv figs. 7-8, *C. taimyricus* sp. nov. pl. iv figs. 9-11, 13a-6, *C. ? borealicus* sp. nov. pl. iv figs. 12a-6, *C. parnaicus* sp. nov. pl. iv fig. 14, **Balashova (1)**.

Ceratocephala triacanthis p. 384, *C. laciniata*, *C. (Ceratocephalina) tridens* p. 385 ff., *C. rarisipina* p. 387, **Whittington**.

Ceratocephala vesiculosa Beyrich [for Ferronnière 1920-22 pl. 5 fig. 100] p. 103, **Pillet (2)**.

Ceratocephalina see *Ceratocephala*.

Ceratolithus cornutus n. gen. n. sp. [nom. nud.] p. 43 Ordovician China, **Lu**.

Ceratopyge forficula Sars 1847 p. 274 pl. lxxv figs. 4a-c, **Lesnikova & Weber**.

Ceratopyge forficula (Sars) p. 274, **Tjernvik**.

Ceratopyge forficula f. (Sars), *C. f. acicularis* (Sars & Boeck) listed p. 174, **Henningsmoen**.

Ceratopyge cf. *forficula* Sars p. 144, **Balashova & Balashov**.

Ceratopyge transversa n. sp. [nom. nud.] p. 88 Ordovician China, **Lu**.

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- Drumaspis walcotti* Resser with synonyms *idahoensis*, *briscoensis* & *nitida* R. 1942 p. 416 pl. ix figs. 1-14, **Lochman & Hu**.
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Euptychaspis typicalis Ulrich p. 393 pl. lii figs. 11-13, **Rasetti**.

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Eymekops rectangularis Resser & Endo [recte Endo] type of *Peichiashania* gen. n. [quod vide] p. 223, **Chang**.

Falanaspis aliena Tjernvik 1956 p. 171 pl. i fig. 8, **Henningsmoen**.

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Flexicalymene omniensis Shirley, F. cf. *laticeps* Bancroft p. 207, F. aff. o. p. 208, F. cf. *caractaci* (Salter), F. aff. c. p. 214, **Dean** (1).

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Geragnostus crassus Tjernvik, *G. sidenbladhi* (Linnarsson) from Norway p. 174, **Henningsmoen**.

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Geragnostus sp. undet. p. 380 pl. li figs. 15-18, **Rasetti**.

Germaropyge sancta-crucensis (Czarnocki) [sp. n.] neotype [sic] for *Ellipsocephalus* s.-c. C. 1927 nom. nud. p. 527 pl. ii figs. 4-12 Cambrian (Lower) Poland (H. Cross Mts.), **Samsonowicz** Bull. Acad. polon. Sci. [sci. chim., etc.] 7 7 1959.

Gigantopygidae fam. n. [Redlichiaceae] for *Gigantopygus* p. 204, **Harrington** Treatise on Invertebrate Paleontology Part O 1959.

Gigantopygus see *Gigantopygidae* fam. n.

Glaphurina strigata Weber 1932 p. 305 pl. lxxix figs. 7a-b, G. aff. *lametensis* [sic] Ulrich 1929 p. 305 pl. lxxix fig. 8, **Lesnikova & Weber**.

Glaphurus altaicus Weber 1948 p. 305 pl. lxxix fig. 10, **Lesnikova & Weber**.

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Glyphaspis robustus Deiss p. 1781, **Kauffman**.

Glyphaspis vulsa sp. n. p. 198 pl. xxii figs. 12-14, *G. tecta* sp. n. p. 198 pl. xxii fig. 15 pars, *G. kwaguntensis* sp. n. p. 199 pl. xxv figs. 12-13 partes, pl. xxvi figs. 2-4 Cambrian (Middle) U.S.A. (Arizona), **Resser** Publ. Carneg. Instn No. 563 1945.

Glyptagnostus [reticulatus p. 10] text-fig. 3f, **Kindle & Whittington**.

Glyptagnostus reticulatus (Ang.) p. 360, **Miroshnikov et al.**

Glyptometopus laflammei (Clark) p. 381 pl. li figs. 30-31, **Rasetti**.

Goldillaeninae subfam. n. [Scutellulidae] p. 34 for *Goldillaenus*, *Goldillaenoides* gen. n. and *Illaeus indeterminatus* Walcott, **Balashova** *Sborn. stat. paleont. biostrat.* 15 1959.

Goldillaenoides taimyricus gen. et sp. nov. pl. i figs. 8-9, pl. iii figs. 32a-6, **Balashova** (1).

Goldillaenoides gen. n. [Goldillaeninae] p. 35 for type *G. taimyricus* sp. n. p. 36 [pl. i figs. 8-9, pl. iii figs. 32a-6] Ordovician (Upper) U.S.S.R. (Arctic), *Illaeus indeterminatus* Walcott compared with *G. p. 36*, **Balashova** *Sborn. stat. paleont. biostrat.* 15 [pls. in 14] 1959.

Goldillaenus Schindewolf referred to Scutellulidae (Goldillaeninae) subfam. n. p. 35, **Balashova** (2).

Gonioteoloides Kobayashi 1955 discussed and relation to *Psaliskilus* suggested, G. sp. cf. *G. monoceros* K. p. 117 pl. xxi figs. 8-9, **Berg & Ross**.

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Granularia discussed p. 101ff., *G. protolenorum* Lermontova text-figs. 1 (reconstr.)-2, **Suvorova** (1).

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Griffithides cf. *brevicaudata* [sic] Gheyselsink p. 207 text-fig., **Yanagisawa**.

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Harpes neograticis R. et E. Richter 1924 p. 104 pl., **Strnad** (2).

Harpidae [not *Harpedidae*] so spelt p. 165n, **Henningsmoen**.

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Harpides rugosus (Sars & Boeck) p. 274, **Tjernvik**.

Harpides rugosus (Sars & Boeck 1838) with cephalic doublure showing two girders p. 166 pl. ii figs. 5-11, **Henningsmoen**.

Harpididae Raw 1949 so spelt [not *Harpidedidae*], considered possibly related to *Harpidae* and *Hungaiidae* p. 164, **Henningsmoen**.

Harpididae see *Harpina* subord. n.

Harpina subord. n. [Ptychopariida] p. 415 for Harpidae, Harpididae and Entomaspididae, Whittington Treatise on Invertebrate Paleontology Part O 1959.

Heliomeroides teres p. 384, Whittington.

Hemiarges Gürich 1901 discussed p. 149, *H. ambiguus* (Barrande 1846) lectotype chosen and figured p. 150 pl. xi figs. 4-12, text-figs. 39-40, *H. heteroclytus* (B. 1846) p. 152 pl. vi figs. 7-12, text-figs. 41-43, Vaněk (2).

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Holia secreti p. 384, *H. cimelia* p. 385, Whittington.

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Holotrachelacea see Illaenina subord. n.

Holotrachelus punctulosus (Tornquist) 1884 p. 299 pl. lxxx figs. 3a-b, Lesnikova & Weber.

Homagnostus kasachstanicus Bal. [not seen] p. 144, Balashova & Balashov.

Homalonotus knightii König p. 477, Holland.

Homalonotus knightii König p. 514, Walmsley.

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Homalonotus sp. p. 338, Pauls.

Homalonotus (*Brongniartella*) sp. p. 78, Lu.

Homalops Remelé 1885 (non Motchulsky 1850) see *Calyptaulax* (Subgen. A).

Homolichas Schmidt specific key p. 302ff., *H. deflexa* (Sjögren) 1854 p. 302 pl. lxxx figs. 7a-b, 9a-b, *H. depressa* (Angelin) 1858 p. 303 pl. lxxx figs. 10a-12, *H. eichwaldi* (Nieszkowski) 1857 p. 303 pl. lxxx figs. 6a-b, 8, Lesnikova & Weber.

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? *Homotelus* n. sp. [undescribed] p. 36, Thorsteinsson.

Honanaspis subgen. n. see *Proasaphiscus*.

Hoplichas conicobuterculatus (Nieszkowski) 1858 p. 302 pl. lxxxii figs. 1a-2, Lesnikova & Weber.

Hungatia magnifica (Billings) from Maryland p. 388 pl. liv fig. 15, Rasetti.

Hungatiidae referred tentatively to Olenina p. 158, Harpididae may be related p. 166, Dikelocephalininae a subfamily p. 161, Henningsmoen.

Hypagnostus parvifrons, *H. cf. truncatus* p. 12, Kindle & Whittington.

Hypermeaspididae Harrington & Leanza 1957 considered a subfamily of Olenidae, *Tropidopyge* not referred p. 161, Henningsmoen.

Hypermeaspidis rugosa (Brøgger) so referred p. 174, Henningsmoen.

Hystericus binodosus Weber 1948 p. 274 pl. lxxv figs. 3a-c, Lesnikova & Weber.

Hystericus conicus (Billings) p. 144, Balashova & Balashov.

Hystericus oculilunatus Ross p. 112 pl. xxi fig. 2, *H. ?* sp. aff. *H. ? genacurus* (Hintze) p. 112 pl. xxi figs. 21, 23, Berg & Ross.

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Ichangolithus ichangensis [nom. nud.] Ordovician China table 1 [p. 9], Lu.

Idahoia Walcott 1925 discussed with diagnosis p. 420, *I. serapio* W. p. 417 pl. lx figs. 28-36, *I. wisconsinensis* (Owen) [not a geographical variant of *I. s.*] with immature stages p. 417 pl. lix figs. 12-32, *I. latifrons* (Shumard) types lost and sp. unrecognisable p. 421, *Idahoia* (*Meeria*) Frederickson 1949 so referred and discussed p. 419, *I. (M.) modesta* sp. n. Cambrian (Upper) U.S.A. (Idaho) p. 420 pl. lix figs. 33-45, *I. (M.) undescribed* sp. from Texas p. 420, Lochman & Hu J. Paleont. 33 3 1959.

Idahoia wisconsinensis (Owen) p. 111 pl. xxii fig. 10, *I. sp.* p. 111 pl. xxii figs. 7, 11, Berg & Ross.

Idahoiidae see Olenina.

Idiomessus intermedius sp. n. p. 393 pl. li figs. 25-26 Cambrian (Upper) U.S.A. (Md & Pa), Rasetti J. Paleont. 33 3 1959.

Illaeenacea see Illaenina subord. n.

Illaeenidae see Ectillaeninae subfam. n.

Illaeenids p. 385ff., Whittington.

Illaeenina subord. n. [Ptychopariida] p. 365 for Illaeenacea, Holotrachelacea and Proetacea, Jaanusson Treatise on Invertebrate Paleontology Part O 1959.

Illaeenus Dalman 1827 specific key p. 291ff., *I. schmidtii* Nieszkowski 1857 p. 292 pl. lxxvi figs. 4a-c, pl. lxxvii fig. 9, *I. emarkii* (Schlothheim) 1826 p. 292 pl. lxxvii figs. 5a-6e, *I. convexicollis* Weber 1948 p. 293 pl. lxxv figs. 8-9, *I. funiculatus* W. 1948 p. 293 pl. lxxviii figs. 6a-b, *I. oculosus* Holm 1886 p. 293 pl. lxxv figs. 3-4, *I. sinuatus* H. 1886 p. 293 pl. lxxvii figs. 1-3, *I. laticlavus* Eichwald 1860 p. 294 pl. lxxiv fig. 7, pl. lxxv figs. 1-2c, *I. sphaericus* H. 1883 p. 294 pl. lxxviii figs. 3a-c, *I. jevensis* H. 1886 p. 294 pl. lxxviii fig. 2, *I. talasicus* W. 1948 p. 294 pl. lxxvi figs. 5a-c, *I. oblongatus* (Angelin 1854) p. 295 pl. lxxvii figs. 1a-b, 4-6, *I. o. forma kukersiana* H. pl. lxxvii figs. 7a-8e, *I. o. forma iferenensis* H. pl. lxxvii fig. 3, *I. revatiensis* H. 1886 p. 295 pl. lxxxiii figs. 1-3, *I. dalmani* Volborth 1863 p. 295 pl. lxxv figs. 5-6, *I. tauricornis* Kutorga 1848 p. 296 pl. lxxvii figs. 2a-b, *I. sulcifrons* H. 1886 p. 296 pl. lxxv figs. 8a-b, pl. lxxv figs. 7a-b, *I. intermedius* H. 1886 p. 296 pl. lxxviii figs. 4-5, *I. linnaeoni* H. 1883 p. 296 pl. lxxviii figs. 1a-c, *I. oviformis* Warburg 1925 p. 297 pl. lxxvi figs. 6a-c, Lesnikova & Weber.

Illaeenus aff. *aemulus* Salter (= *I. namhsinensis* Reed) p. 1548, Bordet et al.

Illaeenus americanus Billings, *I. groenlandicus* Troedsson, *I. sp.* p. 36, Thorsteinsson.

Illaenus aff. americanus Billings p. 88, *I. cf. angusticollis* B. p. 91, Colquhoun.

Illaenus angustifrons Holm p. 6ff., *I. mascei* H., *I. roemeri* Volb. p. 11, Männil.

Illaenus huangi p. 73, *I. deltoides* p. 77 n. spp. [nom. nuda] Ordovician China, Lu.

Illaenus cf. thomsoni Salter p. 361, Miroshnikov et al.

Illaenus valvulus Raymond pl. iii figs. 5-6, *I. latiazatus* Bradley et R. pl. iii figs. 7-9, *I. depressicapitatus* B. pl. iii figs. 10-14, *I. sp.* pl. ii fig. 13, Balashova (1).

Illaenus valvulus Raymond 1925 p. 38, *I. latiazatus* Raymond et Naraway p. 40, *I. depressicapitatus* Bradley 1930 p. 39, *I. sp.* p. 41; *I. indeterminatus* Walcott referred to *Goldillaeninae* subfam. n. p. 35 and compared with *Goldillaenoides* gen. n. p. 36, Balashova (2).

Inoyella Reusser & Endo referred to *Namanoidae* p. 222, Chang.

Inoyella fongfongensis sp. n. [nom. nud. 1957 when referred to *Inoyellaspis*] p. 211 (236) pl. iv fig. 19 Cambrian (Middle) China, Chang Acta palaeont. sinica 7 3 1959.

Inoyella Poletaeva 1936 referred to *Namanoidae* but probably a synonym of *Taitzia* p. 223, Chang.

Inoyella Poletaeva discussed and referred to *Namanoidae* p. 141, *I. quadratica* P. lectotype selected [illegitimate] p. 143 pl. ix figs. 1-6, Pokrovskaya.

Inoyella [misspelt *Inoyella* on pl.] range in Altai-Sayan pl. i, Zhuravleva & Repina.

Inoyellaspis fongfongensis Chang 1957 nom. nud. see *Inoyella fongfongensis* sp. n.

Iranaspidinae subfam. n. [Leiothegiidae] p. 315 for *Iranaspid* and *Plethopeltella*, Lochman[-Balk] Treatise on Invertebrate Paleontology Part O 1959.

Iranaspid see *Iranaspidinae* subfam. n.

Irvingella text-fig. 3e, Kindle & Whittington.

Irvingella norilica Las. [not seen] p. 359, Miroshnikov et al.

Isalauz stricta Kram. [not seen] p. 360, Miroshnikov et al.

Isocolidae—diagnosis discussed and *Thomondia* referred p. 377, Weir.

Isocolidae see *Taimyraspid* gen. n.

Isocolus aff. sjögreni Angelin 1854 p. 299 pl. lxxix figs. 4a-b, Lesnikova & Weber.

Isoteloides homalonotoides (Walcott) var. *taimyrica* var. n. p. 33 pl. ii fig. 4 Ordovician (Upper p. 33 but Middle pl. expl.), *I. kimmswickensis* Bradley var. *nordica* var. n. p. 34 pl. ii fig. 14 Ordovician (Upper) U.S.S.R. (Arctic), Balashova Sborn. stat. paleont. biostat. 14 1959.

Isotelus p. 89n, Thorsteinsson.

Isotelus aff. iowensis (Owen), *I. cf. latus* Raymond p. 85, *I. gigas* DeKay p. 91, Colquhoun.

Isotelus aff. iowensis Owen 1852 p. 31 pl. ii figs. 7-9, *I. sp.* 1 p. 32 pl. i fig. 15, *I. sp.* 2 p. 33 pl. ii fig. 3 Ordovician (Upper) U.S.S.R. (Arctic), Balashova (1).

Isotelus platyrhachis (Steinh.) p. 6ff., Männil.

Isotelus remigium (Eichwald) 1860 p. 281 pl. lxxiii fig. 5, *I. platymarginatus* Raymond 1910 p. 281 pl. lxxiii fig. 3, *I. aktchokensis* Weber 1948 p. 282 pl. lxxiii fig. 2, Lesnikova & Weber.

Isotelus sp. p. 387, Whittington.

Jakutidae fam. n. [Corynexochioidea] for *Jakutus*, *Bathyriscellus*, *Judaella*, *Parapoliella*, *Malykania* and *Lenaspis* gen. n. p. 66, Suvorova Paleont. Zhurnal 1959 3.

Jakutus see *Jakutidae* fam. n.

Jakutus quadriceps Lerm. p. 1372, Z. A. Zhuravleva (2).

Johoaspis [nom. nud.] sp. p. 5, Lazarenko.

Judaella see *Jakutidae* fam. n.

Judomia see *Callaviinae* subfam. n.

Kadyella gen. n. [Protoleninae] p. 58 for type *K. ubanurica* sp. n. p. 59 pl. i figs. 8-9, 13-16, pl. ii figs. 1-2, *K. kadyensis* sp. n. p. 61 pl. i fig. 10 Cambrian (Lower) U.S.S.R. (Tuva & Yakutia), *K. sp.* p. 32, Pokrovskaya Trud. geol. Inst. S.S.S.R. 27 1959.

Kainella alimbetica Bal. [not seen] p. 144, Balashova & Balashov.

Kainella sp. cf. *K. billingsi* Walcott p. 117 pl. xxi fig. 26, pl. xxii figs. 6, 13, Berg & Ross.

Kainella tohanpoensis Sheng n. sp. [nom. nud.] p. 36 Ordovician (Lower) China, Lu.

Kameschkoviella Repina [nom. nud.] range in Altai-Sayan pl. i, Zhuravleva & Repina.

Karakolia gen. et sp. nov. (Chernysheva) [nom. nud.] p. 81, Zhuravleva et al. (1).

Kazelia norilica Las. [not seen] p. 359, Miroshnikov et al.

Keithia intermedia sp. n. p. 392 pl. liv figs. 23-27, *K. sp.* undet. p. 392 pl. li fig. 24 Cambrian (Upper) U.S.A. (Maryland), Rasetti J. Paleont. 33 3 1959.

Keithiella text-fig. 3a, Kindle & Whittington.

Keithiella cylindrica (Billings) p. 391 pl. li fig. 23, *K. sp.* undet. p. 392 pl. lii figs. 17-18, Rasetti.

Kendallia Berg 1953 non Evermann & Shaw 1927 see *Kendallina* nom. n.

Kendallina gen. n. [Parabolinoidea] (nom. n. for *Kendallia* Berg 1953 non Evermann & Shaw 1927) p. 272, R. B. Berg Treatise on Invertebrate Paleontology Part O 1959.

Kijanelia range in Altai-Sayan pl. i, Zhuravleva & Repina.

Kingstonia sp. p. 359, Miroshnikov et al.

Kjerulfia see *Callaviinae* subfam. n.

Kjerulfia ? *lagowiensis* Czarnocki [sp. nondeser.] p. 450 pl. iii figs. 10-12, *K. sp.* p. 450 pl. iii figs. 1-9, Samsonowicz (1).

Klotziella poletaevae [poletayevi] Lermontova type of *Sayanella* gen. n. [quod vide] p. 150, Pokrovskaya.

Kloudekia solitaria (Barr.) p. 48, Vaněk (3).

Kochina see *Trachycheilus* gen. n.

Kochina ? *angustata* sp. n. p. 212 pl. xxiii fig. 3 Cambrian (Middle) U.S.A. (Arizona), Resser Publ. Carneg. Instn No. 563 1945.

Kobinella prima Rep. [nom. nud.], K. sp. p. 77, Zhuravleva et al. (1).

Kootenia range in Altai-Sayan pl. i, Zhuravleva & Repina.

Kootenia tetraspinoza sp. n. p. 199 pl. xx figs. 1-4, K. mckeei sp. n. p. 200 pl. xx figs. 5-10, K. schenki sp. n. p. 200 pl. xx figs. 11-17, K. simplex sp. n. p. 201 pl. xxi figs. 16 pars-17, K. havasuensis sp. n. p. 202 pl. xxiii figs. 14-17, K. sp. undet. p. 202 pl. xxii fig. 17 Cambrian (Middle) U.S.A. (Arizona), Resser Publ. Carneg. Instn No. 563 1945.

Kootenia sp. p. 1033, Zhuravleva et al. (2).

Kooteniella range in Altai-Sayan pl. i, Zhuravleva & Repina.

Kooteniella slatkowskii Smidt p. 626, Anatol'eva & Shelkovichov.

Koptura longibiloba sp. n. p. 209 (232) pl. iv fig. 2 Cambrian (Middle) China (Shantung), Chang Acta palaeont. sinica 7 3 1959.

Kounamkites sp. p. 5, Lazarenko.

Krovina pressulata Rep. [nom. nud.] p. 71, Zhuravleva et al. (1).

Kujandaspis gen. n. [no family assigned] p. 110 for type *K. kujandensis* sp. n. p. 111 pl. i fig. 5 Cambrian (Upper) U.S.S.R. (Kazakhstan), Ivshin Izv. Acad. Sci. Kazakhstan S.S.R. [Geol.] 21 1955.

Kujandaspis kujandensis Ivshin p. 359, Miroshnikov et al.

Kujandina gen. n. [no family assigned] p. 111 for type *K. taskudukensis* sp. n. p. 112 pl. i fig. 8 Cambrian (Upper) U.S.S.R. (Kazakhstan), Ivshin Izv. Acad. Sci. Kazakhstan S.S.R. [Geol.] 21 1955.

Kuraspis obscurus gen. et sp. n. (N. E. Chernysheva) [nom. nud.] p. 651, Petrakov.

Labradoria [angustifrons] Ivshin 1957 does not belong to *L.* p. 131n, Pokrovskaya.

Ladadiscus gen. n. [Eodiscinae] p. 167 for type *L. limbatus* sp. n. p. 168 pl. xi figs. 5-8, 10-15, 17 Cambrian (Lower) U.S.S.R. (Tuva), Pokrovskaya Trud. geol. Inst. S.S.S.R. 27 1959.

Laminurus Repina [nom. nud.] range in Altai-Sayan pl. i, Zhuravleva & Repina.

Laminurus inornata Repina [nom. nud.] p. 1032, Zhuravleva et al. (2).

Lapidaria see *Niobinae* subfam. n.

Laticephalus gen. n. [Incertae sedis, compared with *Edelsteinaspis* and *Paleofossus*] p. 158 for type *L. trapezoidalis* sp. n. p. 159 pl. viii figs. 10, 13, *L. tuberosus* sp. n. pp. 159, 161 pl. x figs. 1-2 [but these figs. referred to *trapezoidalis* p. 159] Cambrian (Lower) U.S.S.R. (Tuva etc.), Pokrovskaya Trud. geol. Inst. S.S.S.R. 27 1959.

Laticephalus range in Altai-Sayan pl. i, Zhuravleva & Repina.

Lauzonella see *Loganellidae* fam. n.

Leignostus alimbeticus Bal. [not seen] p. 144, Balashova & Balashov.

Leimitzia Sdzuy 1955 discussed and referred to *Dikelokephalininae* p. 162, Henningsmoen.

Leiocoryphe cf. *L. gemma* Clark p. 385 pl. liii fig. 32, *L. transversa* Rasetti [including *L. n. sp. of R. 1945*] with median suture on cephalic doublure p. 385 pl. liii figs. 25-30, *L. cf. L. occipitalis* R. p. 386 pl. liii fig. 31, *L. cf. L. brevis* p. 378, Rasetti.

Leioestegiidae see *Iranaspidinae* subfam. n.

Leioestegium Raymond 1913 discussed p. 113, *L. (Leioestegium) manitouensis* Walcott p. 114 pl. xxi figs. 10-13, 17, 24, *L. (L.)* sp. p. 114 pl. xxii figs. 1-2, *L. (Perischodory)* R. 1937 so considered p. 114, *L. (P.) incomptum* sp. n. p. 115 pl. xxi fig. 15, pl. xxii fig. 4, *L. undet. cranidia* [may belong to *L. (L.) m. or L. (P.) i.*] p. 115 pl. xxi figs. 14, 19, *L. (Manitouella)* [Ulrich MS] subgen. n. for type *L. (M.) ulrichi* sp. n. p. 115 pl. xxi figs. 1, 3, 4, 6, pl. xxii figs. 5, 9 Ordovician (Lower) U.S.A. (Colorado), Berg & Ross J. Paleont. 33 1 1959.

Leioestegium ? sp. undet. from Cambrian (Upper) p. 413 pl. lvii figs. 21-22, Lochman & Hu.

Lenaspis gen. n. [Jakutidae] for type *L. opipara* sp. n. p. 68 pl. vi figs. 1-3 text-figs. 1a-6, *L. limata* sp. n. p. 69 pl. vi fig. 4 text-figs. 2a-6 Cambrian (Lower) U.S.S.R. (Yakutia), Suvorova Paleont. Zhurnal 1959 3.

Lermontovia Suvorova 1956 a synonym of *Protolenus* to which *L. lenasia* and *L. convezia* S. are referred p. 42, Pokrovskaya.

Lermontoviella gen. n. [Antagmidae] p. 154 for type *L. shanganica* sp. n. p. 155 pl. ix figs. 7-9, *L. sayanica* sp. n. pp. 155, 157 for *Ptychoparia* ? sp. Poletaeva 1936 Cambrian (Lower) U.S.S.R. (Tuva & Sayan), Pokrovskaya Trud. geol. Inst. S.S.S.R. 27 1959.

Lermontoviella range in Altai-Sayan pl. i, Zhuravleva & Repina.

Lermontoviidae Suvorova 1956 discussed and so considered, taken to include *Lermontovia*, *Bergeroniellus*, *Bergeroniopsis* and *Olekmaspis* p. 395, Sdzuy.

Lermontoviinae Suvorova a synonym of *Protoleninae* [quod vide] p. 39, Pokrovskaya.

Lermontoviinae see *Lermontoviidae*.

Levisella see *Loganellidae* fam. n.

Levisella nasuta sp. n. p. 394 pl. liv figs. 1-3 Cambrian (Upper) U.S.A. (Maryland), Rasetti J. Paleont. 33 3 1959.

Levisia Walcott 1911 referred to *Namanoididae* p. 222, *L. adrastra* (W.) so referred and discussed p. 225 text-figs. 18-19, Chang.

Liaoyangaspis gen. n. [nondescr. 1957] [no family ascribed] p. 197 (219) for type *Asaphicus bassleri* Resser & Endo 1937 (stated to have 11 thoracic segments) with synonym *A. kobayashii* R. & E. [given as

type of *L.* in 1957] p. 198 (220) pl. ii figs. 1-3 text-figs. 5-6, *L. walcotti* (R. & E.) restr. text-fig. 7, *L. tsutsumii* (E.) text-fig. 10, *L. endoi* sp. n. for *A. walcotti* R. & E. 1937 *partim* (pl. 43 fig. 6) text-fig. 8, *L. wangi* sp. n. for *A. walcotti* of Lu 1957 text-fig. 9, p. 200 (221) Cambrian (Middle) China & Manchuria, *L. peiensis* (R. & E.) also referred p. 220, **Chang Acta palaeont. sinica** 7 3 1959.

Lichidae [so spelt] Hawle et Corda 1847 morphology and phylogeny discussed p. 82ff., discussed and classified into Lichinae and Ceratarginae p. 89, **Vaněk** (2).

Lichinae [so spelt] Hawle et Corda 1847 discussed and taken to include *Platylidas*, *Dicranognus*, *Dicranopeltis*, *Lichas*, *Amphilychias*, *Conolichas*, *Hoplotichas*, *Leiolichas*, *Uralichas*, *Artinurus*, *Gaspelichas*, *Terataspis* and *Ceratolichas* p. 91, **Vaněk** (2).

Lichakephalidae see Lichida ord. n.

Lichas Dalman 1827 discussed with synonym i. a. *Metopolichas* p. 92, *L. praecursor* Holub 1911 holotype refigured p. 94 pl. i fig. 8 text-fig. 1, *L. incola* Barrande 1856 lectotype selected and figured including *L. avus* B. 1872 *partim* (pl. 5 fig. 23, pl. 6 figs. 25-26, pl. 10 fig. 17—see also *Uralichas*) p. 96 pl. iii figs. 1-7 text-figs. 2-5; *L. sp. Růžického* 1926 pl. 3 figs. 4-5 referred to *Platylidas kloučeki* p. 115, *L. parvula* Novák 1890 a synonym of *Acanthopyge parva parva* p. 125, **Vaněk** (2).

Lichas sp. p. 339, *L. (Ceratarges)* sp. Gruppe armatus (Goldfuss) p. 353, **Paulus**.

Lichida ord. n. p. 495 for Lichidae and Lichakephalidae, **Moore** Treatise on Invertebrate Paleontology Part O 1959.

Lichidae see Lichida ord. n.

Lichidae see Lichidae.

Lichids p. 385ff., **Whittington**.

Lichinae see Lichinae.

Licharpes venulosus Corda p. 103, **Pillet** (2).

Litagnostus sp. undet. p. 381 pl. li fig. 7, **Rasetti**.

Lobopyge Přibyl et Erben 1952 discussed p. 127, *L. branikensis* (Barrande 1872) lectotype refigured p. 128 pl. vii figs. 9-11, text-figs. 18-21, *L. pragensis* (Bouček 1933) holotype refigured p. 132 pl. vii fig. 8, pl. viii figs. 8-9, text-figs. 22-23, *L. richteri* sp. n. p. 133 (157) pl. viii figs. 4-7, text-figs. 24-26 Silurian (Upper), *L. docekali* [dočekali on pl. expl.] sp. n. [including *Acanthopyge* aff. *haueri* of Čihupáč & Vaněk 1957 p. 125] p. 136 (158) pl. viii figs. 1-3 text-figs. 27-29 Devonian (Lower) Czechoslovakia, **Vaněk** Bohemia Centralis [A] 1 3 1959.

Loganellidae fam. n. [Remopleuridae] p. 331 for *Loganellus*, *Laizonella* and *Levisella*, **Rasetti** Treatise on Invertebrate Paleontology Part O 1959.

Loganellus-group see Olenina.

Loganellus see Loganellidae fam. n.

Loganellus cf. *L. similis* Rasetti p. 394 pl. li figs. 28-29, **Rasetti**.

Loganopeltis nannus Bal. [not seen] p. 144, **Balashova & Balashov**.

Loganopeltoides text-fig. 3d, **Kindle & Whittington**.

Lonchodomas carinatus Cooper 1953 morphology and ontogeny p. 473 pl. xxxii figs. 1-23, pl. xxxiii figs. 1-32 text-figs. 8A-C (reconstrs.), **Whittington**.

Lonchodomas pennatus (La Touche), *L. aff. rostratus* (Sars) p. 207, *L. cf. p.* p. 208, **Dean** (1).

Lonchodomas rostratus (Sars et Boeck) var. *taiyrica* var. nov. pl. vi figs. 6-7, **Balashova** (1).

Loshanella loshanensis n. gen. n. sp. [nom. nud.] p. 39, *L. ? sp.* p. 37 Ordovician (Lower) China, **Lu**.

Lotagnostus cf. *L. trisectus* (Salter) p. 381 pl. li figs. 8-9, **Rasetti**.

Luia gen. n. [related to *Anomocarellidae*] p. 193 (215) for type *L. typica* sp. n. [nom. nud. 1957] p. 194 (216) pl. i figs. 1-4 text-fig. 1, *L. yaochiayuenensis* sp. n. p. 194 (216) pl. i figs. 5-7, *L. shantungensis* sp. n. p. 194 (217) pl. i fig. 8 Cambrian (Middle) China (Shantung), **Chang Acta palaeont. sinica** 7 3 1959.

Lunolenus n. g. (nom. nud.) [Doleroleninae] p. 396, *L. lunae* n. sp. (nom. nud.) pl. i fig. 2 (reconstr.), **Sdzuy**.

Lyrilichas bronnikovii Weber 1932 p. 304 pl. lxxx figs. 15a-c, **Lesnikova & Weber**.

Malykania see Jakutidae fam. n.

Malykania gribovae Suv. p. 797, **Z. A. Zhuravleva** (1).

Malykania gribovae Suv. p. 1372, **Z. A. Zhuravleva** (2).

Manchuriella Resser & Endo discussed and considered probably a subgenus of *Proasaphiscus* p. 227; *M. pustulosa* R. & E. restr. referred to *Szeaspis* gen. n. p. 230, **Chang**.

Manitouwella subgen. n. see *Leiotegium*.

Matthewlenus Hupé a synonym of *Protolenus* p. 42, **Pokrovskaya**.

Meeria Frederickson 1949 discussed and considered a subgenus of *Idahoia* [quod vide] p. 419, **Lochman & Hu**.

Meeria livae sp. n. error pro *Meeria lirae* sp. n. Frederickson 1949, **Z. R. 86** 11 (for 1949) 1951.

Megalaspis Angelin specific key p. 278ff., *M. limbata* (Boeck) 1837 p. 279 pl. lxvi figs. 3-4, *M. gibba* Schmidt 1898 p. 279 pl. lxvii figs. 1a-b, *M. hyorhina* (Leuchtenberg) 1843 p. 279 pl. lxvi figs. 6a-c, *M. h. var. kolenkoi* S. p. 279 pl. lxvii fig. 5, *M. planilimbata* A. 1852 p. 279 pl. lxvii figs. 4-5, *M. acuticauda* S. 1854 p. 280 pl. lxv fig. 11, *M. a. var. triangularis* S. 1904 p. 280 pl. lxvii figs. 3a-b, *M. centaurus* var. *rudis* A. 1854 p. 281 pl. lxvii fig. 2, **Lesnikova & Weber**.

Megalaspis limbata (Boeck 1837) from glacial boulder p. 40 text-fig., **Strnad** (5).

Megalaspis limbata (Boeck 1837) p. 322 pl. xxv figs. 1-2, pl. xxvi fig. 3, **Strnad** (8).

Megalaspis obtusicauda Bohlin, *M. aff. gigas* Angelin (= *M. centaurus* Schmidt) recorded p. 138, **Balashova & Balashov**.

Mendozpidella quebradensis Rusc. discussed p. 6, **Rusconi**.

Menevia cf. venulosa text-fig. 3i, **Kindle & Whittington**.

Menneraspidae fam. n. [Redlichioidea] for *Menneraspis* **gen. n.** p. 83, **Pokrovskaya** Trud. geol. Inst. S.S.S.R. 27 1959.

Menneraspis **gen. n.** [Menneraspidae] p. 84 for type *M. striatus* **sp. n.** p. 85 pl. iii figs. 1-10 Cambrian (Lower) U.S.S.R. (Tuva & Yakutia), **Pokrovskaya** Trud. geol. Inst. S.S.S.R. 27 1959.

Menoparia—ontogeny compared with that of *Remopleurides* p. 397ff., **Whittington**.

Mesotaphraspis inornata, *M. parva* p. 384ff., **Whittington**.

Metadoxides Bornemann 1891 discussed and referred to *Doleroleninae*, *Anadoxides* Matthew considered a synonym, *M. torosus* pygidial structure discussed, *M. richterorum* **n. sp.** (nom. nud.) p. 397 pl. i figs. 3-4 (reconstrs.), **Sdzuy**.

Metadoxidinae Whitehouse 1939 a synonym of *Doleroleninae* p. 396, **Sdzuy**.

Metanomocarella **gen. n.** [nondescr. 1957] [compared with *Anomocarella* and *Aojia*] for type *M. rectangula* **sp. n.** Cambrian (Middle) China (Shantung) p. 195 (217) pl. i figs. 9-12 text-fig. 2, *M. tumida* (Endo) apparently for *Anomocarella tumida* E. 1944 [stated to be type of *M.* in 1957] to which (or to another sp. of *M.*) probably belongs *Aojia tumida* [Resser &] Endo 1937 p. 218, **Chang** Acta palaeont. sinica 7 3 1959.

Metopolichas Gürich specific key p. 300ff., *M. celorhin* (Angelin) 1854 p. 301 pl. lxxx figs. 5a-c, *M. verrucosa* (Eichwald) 1843 p. 301 pl. lxxx figs. 2a-b, *M. kukersiana* (Schmidt) 1885 p. 301 pl. lxxx figs. 5a-b, *M. pachyrhina* (Dalman) 1828 p. 301 pl. lxxxi figs. 6a-7, *M. p. var. longirostrata* S. pl. lxxxi figs. 8a-b, *M. anderkenensis* [sic] Weber 1948 p. 302 pl. lxxx figs. 1a-b, **Lesnikova & Weber**.

Metopolichas Gürich 1901 a synonym of *Lichas* p. 92, **Vaněk** (2).

Micmacca **sp. p.** 30, **Pokrovskaya**.

Microdiscus parkeri Walcott p. 124 (pl. 50) fig., **Badillo**.

Minkella **gen. n.** [Dokimoccephalidae] for type *M. americana* **sp. n.** with immature stages and inferred sexual dimorphism p. 414 pl. lviii figs. 1-3, 5, 7-15, 18-20 [♀ forms with occipital spine, including holotype], p. 416 pl. lviii figs. 4, 6, 16-17 [♂ forms without o. spine] Cambrian (Upper) U.S.A. (Idaho); *Taenicephalus megalops* Kobayashi some cranidia may belong to *Minkella* p. 416, **Lochman & Hu** J. Paleont. 33 3 1959.

Mitchellaespis **gen. n.** [? Encrinurinae] (nom. n. for *Mitchellia* Vogdes 1917 non de Koninck 1877) p. 447, **Henningsmoen** Treatise on Invertebrate Paleontology Part O 1959.

Mitchellia Vogdes 1917 non de Koninck 1877 see *Mitchellaespis* **nom. n.**

Monorakos lopatini Schmidt 1886 p. 312 pl. lxxxiv fig. 12, **Lesnikova & Weber**.

Monorakos zlobini **sp. nov.** pl. iv figs. 1-2, *M. nordicus* **sp. nov.** pl. iv figs. 3-4, *M. magnus* Kramarenko pl. iv fig. 5, *M. mutabilis* K. pl. iv fig. 6, **Balashova** (1).

Mrassina submissa Repina [nom. nud.] p. 1032, **Zhuravleva et al.** (2).

Mundocephalina range in Altai-Sayan pl. i, **Zhuravleva & Repina**.

Namanoia ? grandis **sp. nov.** [nom. nud.] p. 29, **Pokrovskaya**.

Namanoia namanensis Lerm. p. 798, **Z. A. Zhuravleva** (1).

Namanoidae—*Inouyina* referred p. 141, **Pokrovskaya**.

Namanoidae Lermontova taken to include *Namanoia*, *Ordosia*, *Taitzia*, *Inouyella*, *Inouyina*, *Levisia*, and *Poshania* & *Peichiashania* **genn. n. p.** 222, **Chang**.

Neoaldanaspis aff. *arcticus* Las. [not seen] p. 359, **Mikoshnikov et al.**

Neosynphoria see *Synphoria*.

Nieszkowskia cephaloceras (Nieszkowski) 1857 p. 310 pl. lxxxiii figs. 17-19, **Lesnikova & Weber**.

Nileus armadillo Dalman 1827 p. 290 pl. lxxii fig. 13, *N. tengriensis* Weber 1948 p. 290 pl. lxxii figs. 14a-b, **Lesnikova & Weber**.

Nileus liangshanensis **n. sp.** [nom. nud.] p. 76 Ordovician China, **Lu**.

Nileus limbatus Brögger p. 144, **Balashova & Balashov**.

Nileus limbatus Brögger listed p. 174, **Henningsmoen**.

Ninaspis **gen. n.** [no family assigned] p. 113 for type *N. ichernyshevae* **sp. n.** p. 114 pl. i fig. 4 Cambrian (Upper) U.S.S.R. (Kazakhstan), **Ivshin** Izv. Acad. Sci. Kazakhstan S.S.R. [Geol.] 21 1955.

Niobe see *Niobinae* **subfam. n.**

Niobe insignis Linnarsson listed p. 174, **Henningsmoen**.

Niobe insignis Linnarsson p. 274, **Tjernvik**.

Niobe insignis Linn., *N. laeviceps* Dalm. p. 144, **Balashova & Balashov**.

Niobe laeviceps (Dalman) 1827 p. 281 pl. lxxii figs. 11-12, *N. frontalis* (D.) 1827 p. 281 pl. lxxii fig. 10, **Lesnikova & Weber**.

Niobella see *Niobinae* **subfam. n.**

Niobella obsoleta (Linnarsson) listed p. 174, **Henningsmoen**.

Niobina see *Niobinae* **subfam. n.**

Niobinae **subfam. n.** [Asaphidae] p. 350 for *Niobe*, *Bohemopyge*, *Lapidaria*, *Niobella*, *Niobina*, *Norinia* and *Yuepingia*, **Jaanusson** Treatise on Invertebrate Paleontology Part O 1959.

Noticeps **gen. n.** [Edelsteinaespididae] p. 71 for type *N. onerosa* **sp. n.** p. 72 pl. vi figs. 5-9 text-figs. 3a-z, 4 Cambrian (Lower) U.S.S.R. (Yakutia), **Suvorova** Paleont. Zhurnal 1959 3.

Norinia see *Niobinae* **subfam. n.**

Norwoodicea see *Bolaspidae* **fam. n.**

Novaspis aff. *albida* (Reed) including *Trinucleus concentricus* of Baily 1862 p. 371 pl. lxii figs. 5-8, Weir.

Odontochile Hawle & Corda 1847 placed on Official List of Generic Names, gender deemed feminine, designation of *Asaphus haumanni* Brongniart 1822 [quod vide] as type p. 43, *O. applanatus* H. & C. 1847 [considered nom. dub. by R. P. Tripp & W. F. Whittard p. 53] Vogdes' 1925 selection as type of *O.* set aside, **Opinion 537**.

Odontochile spinifera Barrande p. 22 text-fig. 3, **Suñer Coma & Fernández de Villalta**.

Odontopleurida ord. n. p. 504 for Odontopleuridae and Eocidaspidae, **Whittington Treatise on Invertebrate Paleontology Part O 1959**.

Odontopleuridae see Odontopleurida ord. n.

Ogygia sola Barrande referred to *Bronteopsis* p. 215, **Vaněk (1)**.

Ogygia sp. v. Freyberg 1923 may belong to Phacopacea p. 41, **Struve (1)**.

Ogygites primulus (Barr.) for *Proetus* ? p. B. p. 46, *O. nobilis* (B.) p. 47ff., **Vaněk (3)**.

Olekmaspis Suvorova 1956 referred to Lermontovidae p. 395, **Sdzuy**.

Olekmaspis Suvorova 1956 a synonym of *Bergeroniaspis* p. 45, **Pokrovskaya**.

Olenaepella sp. p. 360, **Miroshnikov et al.**

Olenellacea—morphology and evolution discussed p. 151ff., **Stubblefield (3)**.

Olenellidae see Callavinae subfam. n.

Olenellus cf. *fremonti* Walcott p. 193 pl. xix figs. 21-22, *O.* sp. [app.] undet. p. 193 pl. xix figs. 23, 24, 25-26, **Resser**.

Olenellus ? *problematicus* sp. n. p. 157 pl. i fig. 12 Cambrian (Lower) U.S.S.R. (Tuva), **Pokrovskaya** Trud. geol. Inst. S.S.S.R. 27 1959.

Olenidae referred to Olenina and relations to Parabolinoidea and Pteroccephaliidae [quae vide] discussed p. 157; Hypomocaspidae considered a subfam. of Olenidae p. 161, **Henningsmoen**.

Olenina Swinnerton 1915 so accredited and taken to include Olenidae, Pteroccephaliidae, Parabolinoidea, Idahoidea, Elviniidae, *Irvingella*, *Dunderbergia*, *Conaspis*, *Comanchia*, Ptychaspidae, Saukiidae, Dikelocephaliidae, ? Hungaiidae, ? *Loganellus*-group, ? Remopleuridae, ? Andrarinidae, ? Anomocaridae p. 158, **Henningsmoen**.

Olenoides ex gr. *convexus* Lorm., O. cf. *hibridus* Resser p. 626, **Anatol'eva & Shelkovnikov**.

Olenoides manchuriensis Endo 1944 tentatively referred to *Prodamesella* gen. n. p. 219, **Chang**.

Olenoides nevadensis (Meek) p. 84, **Bright**.

Olenella gen. n. [no family assigned] p. 115 for type *O. olenensis* sp. n. p. 117 pl. i fig. 7 Cambrian (Upper) U.S.S.R. (Kazakhstan), **Ivshin** Izv. Acad. Sci. Kazakhstan S.S.R. [Geol.] 21 1955.

Olenus ? Baily 1862 *partim* referred to *Corrugatagnostus convergens* sp. n. p. 370, **Weir**.

Onchocephalus range in Altai-Sayan pl. i, **Zhuravleva & Repina**.

Onchocephalus sp. p. 1032, **Zhuravleva et al. (2)**.

Onchometopus volborthi Schmidt 1898 p. 281 pl. lxxii figs. 6-7, **Lesnikova & Weber**.

Onchonotus richardsoni (Walcott) p. 394 pl. li figs. 5-6, **Rasetti**.

Onnia gracilis (Baneroff), *O.* cf. *superba* (B.) p. 207, **Dean (1)**.

Onnia ornata (Sternberg) p. 47, *O. goldfussi* (Barr.) p. 48, **Vaněk (3)**.

Opsidiscidae Hupé discussed p. 177 [see also *Tannudiscus* gen. n.], **Pokrovskaya**.

Ordovia Lu 1954 referred to Namanoiidae p. 222, *O. fimbriacauda* L. text-fig. 12, **Chang**.

Ormathops oriens (Barr.) p. 46, *O. mirus* Šnajdr p. 47, **Vaněk (3)**.

Orometopidae see Pagometopus gen. n.

Orometopus elatifrons (Angelin) p. 274, **Tjernvik**.

Orometopus elatifrons (Ang.) p. 144, **Balashova & Balashov**.

Orometopus primigenius Størmer, *O. elatifrons* (Angelin) listed p. 174, **Henningsmoen**.

Orphanaspis sp. p. 103, **Pillet (2)**.

Oryctocara ovata Tchern. p. 5, **Lazarenko**.

Oryctocephalus frischenfeldi Lerm. p. 5, **Lazarenko**.

Oryctocephalus (*Viñakainella*) *asperoensis* Ruse. discussed p. 6, **Rusconi**.

Oryctocephalus reynoldsiformis Lerm. p. 5, **Lazarenko**.

Otarion see Cyphaspis.

Otarion (*O.*) *convexum* (Hawle & Corda 1847) p. 7 text-fig., **Strnad (1)**.

Otarion (*O.*) *ferronniense* Pillet, *O. (O.) convexum* Corda, *O. (O.) hydrocephalum barrandeii* C. [respectively for Ferronnière 1920-22 pl. 1 figs. 6, 7, 8] p. 102, *O. (Coignouina)* nov. sp. [undescribed] near *davidsoni* Barrande p. 103, **Pillet (2)**.

Otarion sp. pp. 214, 218, **Dean (1)**.

Otarion sp. p. 197f., **Pillet (1)**.

Otarion sp. p. 249, **Shackleton**.

Otarion sp., "*O.*" sp. p. 387, **Whittington**.

Otarionids p. 384, **Whittington**.

Oujjania Hupé 1952 [sic] referred to Bigotinae p. 401, **Sdzuy**.

Ovalocephalus gen. n. [Deiphoninae] for type *O. kelleri* sp. n. including *Staurocephalus* sp. Weber 1948 p. 1316 pl. figs. 3a, 6, a, text-fig. 4a Ordovician (Middle) U.S.S.R. (Kazakhstan), **Koroleva C. R.** Acad. Sci. U.R.S.S. (ns) 124 6 1959.

Pachyaspidis moorei sp. n. p. 210 pl. xxiii figs. 7-9, *P. fonticola* sp. n. p. 211 pl. xxiv figs. 31-32, *P.* sp. undet. p. 211 pl. xxiv figs. 16-21 Cambrian (Middle) U.S.A. (Arizona), **Resser** Publ. Carneg. Instn No. 563 1945.

Pachycranium ? sp. Ross 1951 may belong to *Hystericurus* p. 113, **Berg & Ross**.

Paedeumias sp. p. 1686, **Theokritoff**.

Pagetia ferox Lerm. p. 5, **Lazarenko**.

Pagetites Rasetti 1945 discussed p. 5 with comparison of spp. table 1, *P. sibiricus* sp. n. p. 7 pl. i figs. 1-11, *P. sibiricus* var. *calvus* var. n. p. 11 pl. i figs. 12-19, *P. spinosus* sp. n. p. 12 pl. i figs. 20-31 Cambrian (Middle) U.S.S.R. (N. Siberia), **Lazarenko** Shorn. stat. paleont. biostrat. 14 1959.

Pagetiidae see *Shivelicus* gen. n.

Pagetina range in Altai-Sayan pl. i, **Zhuravleva & Repina**.

Pagetina persubtilis Repina [nom. nud.] p. 1032, **Zhuravleva et al.** (2).

Pagometopus gen. n. [Orometopidae] p. 169 for type *P. gibbus* sp. n. p. 170 pl. ii figs. 1-4 Ordovician (Tremadoc) Norway, **Henningsmoen** Norsk geol. Tidsskr. 39 2-3 1959.

Palaeolenus range in Altai-Sayan pl. i, **Zhuravleva & Repina**.

Paleofossus gen. n. [Edelsteinaspidae] for type *P. zaicevi* sp. n. p. 131 pl. viii figs. 1-2, 4-5, 8-9, 12, 15 Cambrian (Lower) U.S.S.R. (Tuva), **Pokrovskaya** Trud. geol. Inst. S.S.S.R. 27 1959.

Paleofossus range in Altai-Sayan pl. i, **Zhuravleva & Repina**.

Paleofossus see *Laticephalus* gen. n.

Palpebralia see *Parapalpebralia*.

Parabolina sp. nov. [undescribed] p. 222, **Shackleton**.

Parabolinella caesa Lake & 'P. longispina' (Belt) horizon p. 56, **Stubblefield** (1).

Parabolinella limitis Brögger p. 144, **Balashova & Balashov**.

Parabolinoidea referred to Olenina but not derived from Olenidae p. 157, **Henningsmoen**.

Parabolinoidea see *Kendallina* nom. n.

Paraceraurus aculeatus (Eichw.) text-fig. 6 [reconstr.], **Kaljo** (2).

Paracybeloides aff. *loveni* (Linnarsson) p. 207ff., P. sp. ind. p. 214, **Dean** (1).

Paradoxidacea see *Redlichiina* subord. n.

Paradoxides oelandicus Sjöberg 1872 p. 441 pl. i figs. 1-4, ? 5, *P. pinus* Holm p. 442 pl. i figs. 6, ? 7-8, *P. torelli* H. p. 443 pl. ii fig. 1, *P. insularis* Wgård p. 443 pl. ii figs. 2-3, *P. czarnockii* sp. n. p. 443 pl. ii figs. 4a-b, 5, *P. kozlowskii* sp. n. p. 444 pl. ii figs. 6a-b, 7, *P. samsonowiczii* sp. n. p. 445 pl. ii figs. 8a-b, P. sp. No. 1 p. 445 pl. i figs. 9-10 Cambrian (Middle) Poland (H. Cross Mts.), **Orłowski** Bull. Acad. polon. Sci. [sci. chim., etc.] 7 6 1959.

Paradoxides of the *clandicus* Sjögr. group p. 771 pl. figs. 1-6, *P. tessini* Brng. p. 771, **Orłowski** (1).

Paradoxides pradoanus Barr. & Vern. p. 119 (pl. 45) fig., *P. spinosus* Boeck p. 120 (pl. 46) fig., *P. rotundatus* Barr. p. 121 (pl. 47) fig., *P. bohemicus* Boeck p. 122 (pl. 48) 2 figs., *P. rugulosus* Corda p. 123 (pl. 49) fig., P. aff. r. p. 123, **Badillo**.

Paradoxides sp. p. 5, **Lazarenko**.

Paraerbia range in Altai-Sayan pl. i, **Zhuravleva & Repina**.

Paralejulius see *Scutellum*.

Parapalpebralia Erben gen. nov. [nom. nud.] including Armorican forms referred by Pillet 1953 to *Piriproctus* and *Palpebralia* p. 103, P. ? sp. [for Ferrière 1920-22 pl. 1 fig. 13] p. 102, **Pillet** (2).

Parapilekia speciosa (Dalman) listed p. 174, **Henningsmoen**.

Paraplethopeltis ? *genacurvus* and P. ? *genarectus* Hintze spp. may belong to *Hystericurus* p. 112, **Berg & Ross**.

Parapoliella see *Jakutidae* fam. n.

Parasolenopleura linnarssoni (Brögg.) p. 771, **Orłowski** (1).

Parahmania nitida sp. n. p. 207 pl. xxiv figs. 7-15, *P. tontoensis* sp. n. p. 207 pl. xxiv fig. 22, *P. kwaguntensis* sp. n. p. 208 pl. xxv figs. 9-13 partes, pl. xxvi figs. 7-10, P. sp. undet. p. 209 pl. xxv figs. 3-4 Cambrian (Middle) U.S.A. (Arizona), **Resser** Publ. Carneg. Instn No. 563 1945.

Pedinocephalus gen. n. [no family assigned] p. 114 for type *P. bublichenkoi* sp. n. p. 115 pl. i fig. 3 Cambrian (Upper) U.S.S.R. (Kazakhstan), **Ivshin** Izv. Acad. Sci. Kazakhstan S.S.R. [Geol.] 21 1955.

Peichiasiania Chang [nondescr. 1957] gen. n. [Namanoidae] for type *Eymekops rectangularis* Resser & Endo [recte Endo] 1937 Cambrian (Upper) Manchuria p. 201 (223) text-fig. 22, **Chang** Acta palaeont. sinica 7 3 1959.

Peishania lubrica sp. n. [nom. nud. 1957] pl. iv figs. 7-11 [sic], P. l. var. *peitalingensis* var. n. pl. iv fig. 6 p. 210 (234) Cambrian (Middle) China (Shantung), **Chang** Acta palaeont. sinica 7 3 1959.

Peltocare modestum sp. n. p. 158 pl. i figs. 9-10 Ordovician (Tremadoc) Norway, **Henningsmoen** Norsk geol. Tidsskr. 39 2-3 1959.

Perischodory Raymond 1937 considered a subgenus of *Leioptegium* [quod vide] p. 114, **Berg & Ross**.

Peronopsis fallax (Linnr.) p. 5, **Lazarenko**.

Peronopsis interstrictus (White) p. 84 pl. xviii figs. 3-4c (sections), **Bright**.

Peronopsis cf. *scutalis* p. 12, P. cf. *fallax* p. 16, **Kindle & Whittington**.

Perunaspis Přibyl 1949 discussed and referred to *Ceratarginae* p. 138, *P. longispina* P. 1949 p. 139 pl. vii figs. 4-7 text-figs. 30-31, *P. minuta* (Barrande 1846) p. 141 pl. vii figs. 1-3 text-figs. 32-34, **Vaněk** (2).

Phacopacea see *Phacopina* subord. n.

Phacopacea—*Ogygia* sp. v. Freyberg 1923 may belong p. 41, **Struve** (1).

Phacopid new species [distinguished from *Phacops rana* (Green)] p. 1727, **Jones**.

Phacopida see *Phacopina* subord. n.

Phacopidae diagnosis of R. & E. Richter 1959 emended to accommodate *Volkops* gen. n. [quod vide] p. 32, **Struve** (1).

Phacopidae—phylogeny of Thuringian U. Devonian forms table 1 (p. 265), **Pfeiffer**.

Phacopidella (*Dienstina*) *liopyga* Reinh. Richter neotype chosen and figured p. 271 pl. iv fig. 6, **Pfeiffer**.

Phacopidella (*Denckmannites*) *micromma* (Roemer 1854) p. 71 2 text-figs., **Strnad** (6).

Phacopidina *apiculata* (M'Coy) so attributed and referred p. 146, **Dean** (2).

Phacopidina *apiculata* (M'Coy) p. 214, **Dean** (1).

Phacopina subord. n. [Phacopida] p. 461 for Phacopacea and Dalmanitacea, **Struve** Treatise on Invertebrate Paleontology Part O 1959.

Phacopinae see *Volkops* gen. n.

Phacops (*Pterygomotopus*) *tagon* Reed may belong to new genus p. 147, **Dean** (2).

Phacops (*P.*) *granulatus* Mstr p. 269 pl. iii fig. 1, *P.* (*P.*) *cryptoides* R. & E. Richter p. 269 pl. iii figs. 2-4, *P.* (*Cryphops* ?) *wocklumeriae* R. & E. R. p. 270 pl. iii figs. 5a-b, 6, *P.* (*Trimeroccephalus*) *lacunosus* sp. n. p. 270 pl. iv figs. 1-4, *P.* (*T.*) *mastophthalmus* Reinh. R. pl. iv fig. 5 Devonian (Upper) Germany (Thuringia), **Pfeiffer** Geologie 8 3 1959.

Phacops (*Phacops*) *granulatus* (Münster) p. 105, *P.* (*Dianops*) *anophthalmus* (Frech) p. 106 pl. ii fig. 3, **Lewowicki**.

Phacops (*P.*) *granulatus* (Münster), *P.* (*Cryphops* ?) *wocklumeriae* R. & E. Richter p. 58, **Dearman & Butcher**.

Phacops *latifrons*—forged individual with 12 thoracic segments text-fig. 3, **Schmidt**.

Phacops (*Dalmanites*) *longicaudatus* var. *orientalis* Reed p. 1548, **Bordet et al.**

Phacops *quadrilineatus* Angelin pl. v fig. 19, **Balashova** (1).

Phacops *rana* (Green) see Phacopid new species.

Phacops (*P.*) sp. near *sternbergi* Corda p. 102 [for Ferronnière 1920-22 pl. 1 fig. 4], **Pillet** (2).

Phacops sp. p. 339ff., **Paulus**.

Phalacroma cf. *glandiforme* p. 17, **Kindle & Whittington**.

Pharostoma *pediloba* (Roem.) p. 6ff., **Männil**.

Pharostoma *pulchrum pulchrum* (Barr.) p. 48, **Vaněk** (3).

Phillipsia sp. aff. *P. eichwaldi* (Fisch.) p. 143, **Ivanova**.

Phillipsia *scabra* Woodward see Pygidia.

Phillipsia sp. nov. Koriyama p. 207, **Yanagisawa**.

Phillipsinella *parabola* (Barrande) p. 218, **Dean** (1).

Phorocephala *similis* n. gen. n. sp. [nom. nud.] p. 73 Ordovician China, **Lu**.

Phylacops *bituberculatus* sp. n. (with transitory pygidia) including *Aeglina* *rediviva* of Bailly 1862 p. 377 pl. lxii figs. 1-4 Ordovician (Upper) Eire, **Weir** Palaeontology 1 4 1959.

Phylacops *recurvus* n. sp. [nom. nud.] p. 77 Ordovician China, **Lu**.

Piriproctus see *Parapalpebralia*.

Placoparia *cambrensis* Hicks p. 227, **Shackleton**.

Planaspis *Repina* [nom. nud.] range in Altai-Sayan pl. i, **Zhuravleva & Repina**.

Platycalymene *tenera* (Barr.) for *Calymene* t. B. 1852 p. 215, **Vaněk** (1).

Platylchas *Gülich* 1901 discussed and referred to *Lichas* p. 114, *P. kloučeki* (Růžicka 1926) lectotype chosen and figured including *Lichas* sp. R. 1926 (pl. 3 figs. 4-5) p. 115 pl. i fig. 3, **Vaněk** (2).

Platylchas *laxatus* (McCoy) p. 240, **Shackleton**.

Platylchas *laxatus* (M'Coy) s.l. p. 207ff., *P.* cf. *l.* p. 214, **Dean** (1).

Platypeltoides *incipiens* (Brogger) listed p. 174, **Henningsmoen**.

Plethometopus *armatus* (Billings) p. 383 pl. lii fig. 14, pl. liii figs. 1-8, *P. obtusus* Rasetti including Unassigned pygidium no. 7 of R. 1945 p. 383 pl. liii figs. 11-14, *P. convergens* (Raymond) p. 384 pl. liii figs. 15-19, *P.* sp. undet. no. 1 p. 384 pl. liii figs. 9-10, *P.* sp. undet. no. 2 p. 384 pl. li figs. 1-4; Unassigned pygidia nos. 9 and 10 of Rasetti 1945 belong to *P.* (possibly to *P. a.*) p. 383, **Rasetti**.

Plethopeltella see *Iranaspidinae* subfam. n.

Plicatolina sp. from Norway p. 174, **Henningsmoen**.

Plomera *fischeri* (Eichwald) 1825 p. 311 pl. lxxxiv figs. 1-3b, *P. brevicapitata* (Lamansky) 1905 pl. lxxi figs. 4a-5, **Lesnikova & Weber**.

Plomeridae see *Diaphanometopinae* subfam. n.

Plomeroides see *Protopliomeroides*.

Plomeroides *primigenus* (Angelin) listed p. 174, **Henningsmoen**.

Poliellaspis *Lermontova* discussed p. 113, *P. sayaniensis* (Poletaeva) lectotype selected [illegitimate] p. 114 pl. v figs. 14-15, **Pokrovskaya**.

Poliellaspis range in Altai-Sayan pl. i, **Zhuravleva & Repina**.

Poliellaspis sp. p. 1033, **Zhuravleva et al.** (2).

Poliellina *Poletaeva* discussed p. 100, *P. lermontovae* *P.* lectotype selected [illegitimate] p. 102 pl. v figs. 1, 4, 7-8, 10, 13, *P. elongata* sp. n. p. 104 pl. v figs. 2-3, 5-6, *P. cylindrica* sp. n. p. 107 pl. v figs. 9, 11-12, *P. sicropoyge* sp. n. p. 109 pl. vi figs. 10-11 Cambrian (Lower) U.S.S.R. (Tuva etc.); *P.* sp. [det. *Poletaeva*] p. 16, **Pokrovskaya** Trud. geol. Inst. S.S.S.R. 27 1959.

Poliellina range in Altai-Sayan pl. i, **Zhuravleva & Repina**.

Poshania gen. n. [Namanoididae] p. 200 (221) for type *P. poshanensis* sp. n. [nom. nud. 1957] p. 201 (223) pl. ii figs. 4-10 text-fig. 21, *P. transversa* sp. n. pl. ii figs. 11-13 text-fig. 20, *P. sp.* pl. ii fig. 14 p. 203 (224) Cambrian (Middle) China (Shantung), *Chang Acta palaeont. sinica* 7 3 1959.

Primaspis ascitus p. 388, **Whittington**.

Primaspis keyserlingi (Barr.) p. 48, **Vaněk** (3).

Primaspis semievoluta (Reed) p. 214, **Dean** (1).

Proasaphiscus yabei Resser & Endo stated to have 11 thoracic segs p. 226 text-fig. 23, *P. (Honanaspis) subgen. n.* p. 204 (226) for type *P. (H.) honanensis* sp. n. p. 205 (227) pl. iii figs. 1-4 text-fig. 24, *P. (H.) lui* sp. n. [nom. nud. 1957] p. 206 (228) pl. iii figs. 5-6 text-fig. 25 Cambrian (Middle) China (Honan & Shantung), *P. (H.) machidai* (Endo) so referred p. 229; *Manchuriella* R. & E. probably a subgenus of *P.* p. 227, *Conocephalina termieri* and *tienfongensis* Mansuy 1916 represent a new subgenus of *P.* p. 227n, *P. centronatus* R. & E. and tentatively *P. offula* R. & E. referred to *Szeaspis* gen. n. p. 230, *Chang Acta palaeont. sinica* 7 3 1959.

Prodamesella gen. n. [compared with *Damesella* and *Blackwelderia*] p. 196 (218) for type *P. conveza* sp. n. [nom. nud. 1957] p. 196 (219) pl. i fig. 13 text-figs. 3-4 Cambrian (Middle) China (Shantung), *D. quadrata* [Resser & Endo] *Olenoides manchuriensis* E. provisionally referred to *P.* p. 219, *Chang Acta palaeont. sinica* 7 3 1959.

Proerbia Lerm. discussed, *P. quadratica* sp. n. p. 146 pl. vii figs. 1-6, 8-9 Cambrian (Lower) U.S.S.R. (Tuva), **Pokrovskaya** Trud. geol. Inst. S.S.S.R. 27 1959.

Proerbia range in Altai-Sayan pl. i, **Zhuravleva & Repina**.

Proerbia torgaschinnica Repina [nom. nud.] p. 1032, **Zhuravleva et al.** (2).

Proetacea see *Iliaenina* subord. n.

Proetid p. 1039, **Holland et al.**

Proetidarium gen. et sp. indet. p. 349, **Paulus**.

Proetidella aff. *fearnsidesi* Bancroft p. 206, **Dean** (1).

Proetids p. 384ff., **Whittington**.

Proetus cultrijugati ? R. & E. Richter, *P. sp.* p. 339, *P. sp.* Gruppe c. p. 349, **Paulus**.

Proetus (P.) cuvieri Steininger [for Ferrounnière 1920-22 pl. i fig. 10] p. 102, *P. (P.) orbitatus* Barrande p. 103, **Pillet** (2).

Proetus ? *primulus* Barrande referred to *Ogygites* p. 46, **Vaněk** (3).

Proetus ramisulcatus Nieszkowski 1857 p. 29 pl. i fig. 3, **Balashova** (1).

Proetus sp. cf. *P. regalis* Poulsen p. 50, **Thorsteins-son**.

Proetus romanovskii Weber 1932 p. 299 pl. lxxix figs. 5a-b, **Lesnikova & Weber**.

"*Proetus*" *strasburgensis* p. 384, **Whittington**.

Proetus sp. p. 514, **Walmsley**.

Proliostracus strenuiformis Poulsen 1932—concluded from plots of dimensions that *P. rosenkrantzi*, *P. liostracoides* and *P. noe-nygaardi* *P.* are synonyms p. 474ff. text-figs. 1-15, **Shaw**.

Promegalaspidēs see *Promegalaspidinae* subfam. n.

Promegalaspidēs intactus (Moberg & Segerberg) p. 274, **Tjernvik**.

Promegalaspidēs (Borogothus) intactus (Mob. & Seg.) listed p. 174, **Henningsmoen**.

Promegalaspidēs kasachstanensis Bal. [not seen] p. 144, **Balashova & Balashov**.

Promegalaspidinae subfam. n. [Asaphidae] p. 352 for *Promegalaspidēs* and *Borogothus*, **Jaanusson** Treatise on Invertebrate Paleontology Part O 1959.

Prosaukia stosei (Walcott) supplementary description p. 389 pl. liv figs. 16-22, *P. corrugata* sp. n. with immature stages p. 390 pl. liv figs. 4-14 Cambrian (Upper) U.S.A. (Pa & Va), **Rasetti** J. Paleont. 33 3 1959.

Protolenidae discussed p. 395, relations to Dolerolenidae and Lermontoviidae p. 396, **Sdzuy**.

Protoleninae Hupé discussed with synonym Lermontoviinae Suvorova p. 39 [see also *Elegestina* and *Kadyella* gen. n.], **Pokrovskaya**.

Protolenus Matthew 1892 discussed with synonyms *Matheulenus* Hupé & *Lermontovia* Suvorova p. 42, *P. planus* sp. n. p. 43 pl. ii figs. 11, 14, 18 Cambrian (Lower) U.S.S.R. (Tuva), **Pokrovskaya** Trud. geol. Inst. S.S.S.R. 27 1959.

Protolenus n. sp. [undescri.] pl. i fig. 7, **Sdzuy**.

Protopliomeroides [altered in ink to *Pliomeroides* in offprint from author] *primigenius* (Angelin) p. 274, **Tjernvik**.

Protopliomerops speciosus Dalm., *P. sp.* p. 144, **Balashova & Balashov**.

Protypus sp. p. 1032, **Zhuravleva et al.** (2).

Pruvostina Hupé 1952 [sic] referred to *Bigotiniinae* p. 401, **Sdzuy**.

Pruvostinoides Hupé 1952 [sic] referred tentatively to *Bigotiniinae* p. 401, **Sdzuy**.

Psaliktilus—*Gonioteloides* may be related p. 117, *P. paraspinosus* Hintze pygidium illustrated pl. xxi fig. 5, **Berg & Ross**.

Pseudagnostus convergens Palmer p. 412 pl. lvii figs. 1-6, *P. prolongus* (Hall & Whitfield) with muscle scars p. 412 pl. lvii figs. 7-16 text-fig. 1, **Lochman & Hu**.

Pseudagnostus cf. *cyclopyge* p. 15, **Kindle & Whittington**.

Pseudagnostus gyps (Clark) p. 381 pl. li figs. 13-14, **Rasetti**.

Pseudasaphus globifrons (Eichwald) 1857 p. 288 pl. lxxiv figs. 1-2, *P. tecticaudatus* (Steinhard) 1874 p. 289 pl. lxxiii fig. 1, **Lesnikova & Weber**.

Pseudasaphus huangi n. sp. [nom. nud.] p. 76 Ordovician China, **Lu**.

- Pseudocteraspis* sp. p. 1372, **Z. A. Zhuravleva** (2).
- Pseudogygites latimarginatus* (Hall) p. 46ff., horizon discussed p. 89, *P.* sp. p. 89n, **Thorsteinsson**.
- Pseudoolenoides* ? recorded p. 111, **Berg & Ross**.
- Pseudosphaerexochus* [sic] *orvikui* Männ. pl. xxix fig. 4, **Kaljo** (2).
- Pseudosphaerexochus* cf. *granulatus* Ang. p. 8, **Männil**.
- Pseudosphaerexochus octolobatus* p. 204, *P.* sp. nov. [undescribed] p. 207ff., **Dean** (1).
- Pseudosphaerexochus pahnschi* Schmidt 1881 p. 309 pl. lxxxiii figs. 11-12, **Lesnikova & Weber**.
- Pseudosphaerexochus* sp. p. 379 pl. lxii fig. 16, **Weir**.
- Psilocephalina lata* n. sp. [nom. nud.] p. 36 *Ordovician* (Lower) China, **Lu**.
- Ptarmigania* sp. undet. p. 195 pl. xix fig. 33, **Resser**.
- Pterocephalia* recorded p. 107, **J. BRIDGE** in **Berg & Ross**.
- Pterocephaliidae* referred to *Olenina* and probably closely related to *Olenidae* p. 157, **Henningsmoen**.
- Pterygomotopus* see *Phacops*.
- Pterygomotopus huayinshanensis* n. sp. [nom. nud.] p. 43 *Ordovician* China, **Lu**.
- Pterygomotopus jukesii* (Salter) p. 240, **Shackleton**.
- Pterygomotopus nieszkowskii* (Schmidt) 1881 p. 315 pl. lxxxiv figs. 9a-10, *P. sclerops* (Dalm.) 1826 p. 315 pl. lxxxiv figs. 7-8, **Lesnikova & Weber**.
- Pterygomotopus* sp. Bancroft 1948 probably belongs to *Dufstonia lacunosa* **gen. et sp. n.** p. 146, *P. jukesii* (Salter) referred to *Estoniopsis*, **Dean** (2).
- Ptychagnostus* showing genal caeca text-fig. 1, **Öpik** (1).
- Ptychagnostus atavus* p. 17, *P.* cf. *a.* p. 12, *P.* cf. *aculeatus* p. 17, **Kindle & Whittington**.
- Ptychaspidae* see *Olenina*.
- Ptychaspis bullasa* sp. n. with immature stages p. 422 pl. lviii figs. 21-42, *P. granulosa* (Owen) p. 424 pl. lx figs. 37-44 Cambrian (Upper) U.S.A. (Idaho), **Lochman & Hu J.** Paleont. 33 3 1959.
- Ptychaspis granulosa* (Owen) p. 112 pl. xxii fig. 12; pygidium possibly of *P.* p. 107, **Berg & Ross**.
- Ptychoparia clusia* Walc. p. 30; *P.* ? sp. *Poletaeva* 1936 referred to *Lermontoviella sayanica* **gen. et sp. n.** p. 155, **Pokrovskaya**.
- Ptychoparia truncata* Sampeloyo p. 113 (pl. 39) fig., *C. fichti* Walcott p. 114 (pl. 40) fig., *C. azpeitiae* S. p. 115 (pl. 41) fig., **Badillo**.
- Ptychoparia* sp. p. 5, **Lazarenko**.
- Ptychopariidae* see *Harpina* & *Illaeina* subordd. n.
- Ptychopariids*—traces of intestinal appendages on thorax and pygidium p. 1751, **Öpik** (1).

Ptychopyge Angelin 1854 placed on Official List of Generic Names and type designated *Asaphus angustifrons* Dalman 1827 [quod vide] p. 59, **Opinion 538**.

Ptychopyge angustifrons (Dalman) 1827 p. 288 pl. lxxii fig. 5, **Lesnikova & Weber**.

Ptychopyge ? *inostranzewi* Lamansky 1905 referred to *Asaphellus* p. 145, **Balashova & Balashov**.

Pumilina Repina [nom. nud.] range in Altai-Sayan pl. i, **Zhuravleva & Repina**.

Raphiophoridae—discussion of morphology and ontogeny of *Ampyz*, *Lonchodomas*, *Ampyzina*, *Raymondella* p. 460ff., **Whittington**.

Raphiophoridae see *Ampyzinellinae* subfam. n.

Raphiophorus volborthi Schmidt 1894 p. 276 pl. lxxv figs. 5, 7, *R. bulbifer* Weber 1932 p. 276 pl. lxxv fig. 8, **Lesnikova & Weber**.

Rawlinsella see *Bolaspidae* fam. n.

Raymondaspis gregarius p. 384ff., **Whittington**.

Raymondella Reed 1935 discussed p. 487, *R. elegans* (Cooper 1953) for *Ampyzina* e. C. restr. [non pl. 4 figs. 10-11, 13, 17] p. 488 pl. xxxvi figs. 1-37, *R.* sp. for *A.* sp. C. 1953 p. 490 pl. xxviii figs. 15-16, 19, **Whittington**.

Raymondella nordica sp. nov. pl. vi figs. 15-16, **Balashova** (1).

Redlichiaacea see *Despujolsiidae* & *Gigantopygididae* fam. n.

Redlichiaacea see *Redlichia* subord. n.

Redlichiaida see *Redlichia* & *Bathynotina* subordd. n.

Redlichiaidae see *Asthenaspis* gen. n.

Redlichia subord. n. [Redlichiaida] p. 198 for *Redlichia*acea, *Ellipsocephalacea* and *Paradoxidacea*, **Harrington** Treatise on Invertebrate Paleontology Part O 1959.

Redlichina Lermontova 1940 discussed p. 65, *R. lermontovae* sp. n. p. 68 pl. iv figs. 8-11, *R. rarissima* sp. n. p. 70 pl. iv figs. 2, 4, 6, *R. tuberculata* sp. n. p. 72 pl. iii figs. 11-14, 16, *R. angusta* sp. n. p. 76 pl. iii fig. 15, *R. pustulosa* sp. n. p. 79 pl. iv figs. 1, 3, 5, *R. dubia* sp. n. p. 81 pl. iv fig. 7 Cambrian (Lower) U.S.S.R. (Tuva), *R. zabaikalica* [nom. nud.] p. 67, *R.* sp. p. 29, **Pokrovskaya** Trud. geol. Inst. S.S.S.R. 27 1959.

Redlichina Lermontova 1940 referred tentatively to *Doleroleninae* p. 400, **Sázny**.

Redlichioidea see *Menneraspidae* fam. n.

Redolithus nováki (Chlupáč) for *Tretaspis* n. C. 1952 with which *Trinucleus alfredi* Želízko is probably synonymous p. 215, **Vaněk** (1).

Redolithus nováki (Chlupáč) p. 48, **Vaněk** (3).

Remopleuridae see *Loganellidae* fam. n.

Remopleurides Portlock 1843 diagnosis with discussion of morphology (including comparison of hypostome with that of *Cerurus*) and ontogeny (including protaspides) p. 391ff., *R. caelatus* sp. n.

p. 401 pl. i figs. 1-16, pl. ii figs. 1-25, pl. iii figs. 1-18, pl. iv figs. 1-25, text-figs. 3c, 4A-C, 5A-B, *R. plaesiourus* sp. n. p. 412 pl. iv figs. 26-30, pl. v figs. 1-26, pl. vi figs. 1-15, *R. caphyroides* sp. n. p. 414 pl. vii figs. 1-10, pl. viii figs. 1-10, pl. ix figs. 1-22, pl. x figs. 1-20, pl. xi figs. 1-4, text-figs. 6A-B, *R. c. f.* p. 419 pl. xi figs. 5-11, *R. asperulus* sp. n. p. 420 pl. xii figs. 1-20, pl. xiii figs. 1-31, *R. ezimius* sp. n. p. 424 pl. xiv figs. 1-4, pl. xv figs. 1-18, *R. c. f.* [developmental stages tentatively referred] p. 425 pl. xvi figs. 1-17, *R. simulus* sp. n. [may be sexual dimorphs of *R. c.*] p. 426 pl. xvii figs. 1-23, pl. xix figs. 11-12 Ordovician (Middle) U.S.A. (Virginia), *R. rugicostatus* Raymond type refigured p. 427 pl. xviii figs. 23-24, 26-27, **Whittington Bull. Mus. comp. Zool. Harv. 121 8 1959.**

Remopleurides aff. *burmeisteri* Bancroft, *R.* sp. p. 207, *R.* sp. ind. p. 208, **Dean (1).**

Remopleurides cf. *dalecarlicus* Warb. p. 7, *R. emarginata* Törnq. p. 11, **Männil.**

Remopleurides pisiformis Weber 1948 p. 277 pl. lxvi figs. 1a-c, 2, **Lesnikova & Weber.**

Remopleurides cf. *salteri* var. *girvanensis* Reed 1903 p. 26 pl. i figs. 4a-6, *R.* aff. *longicostatus* Portlock 1843 p. 27 pl. i fig. 2, **Balashova (1).**

Remopleurides sp. p. 373 pl. lxii fig. 20, **Weir.**

Remopleuridid gen. et sp. ind. [may be early growth-stages of *Robergiella sagittalis*] p. 434 pl. xix figs. 1-10 Ordovician (Middle) U.S.A. (Virginia), **Whittington.**

Remopleurididae see Olenina.

Remopleuridinae see *Robergiella* gen. n.

Resimopsis range in Altai-Sayan pl. i, **Zhuravleva & Repina.**

Richardsonella near *R. invita* (Salter) p. 56, **Stubblefield (1).**

Richardsonella megalops (Billings) p. 386 pl. lv fig. 14, *R. subcristata* sp. n. p. 386 pl. lv figs. 15-18, *R. cf. unisulcata* Rasetti p. 387 pl. lv fig. 19 Cambrian (Upper) U.S.A. (Maryland), **Rasetti J. Paleont. 33 3 1959.**

Robergia barrandei (Etheridge et Nicholson) 1879 p. 25 pl. i figs. 18-19, **Balashova (1).**

Robergia major Raymond 1920 with synonym *R. athenia* Butts 1926 p. 428 pl. xviii figs. 1-22, 25, **Whittington.**

Robergiella gen. n. [*Remopleuridinae*] p. 431 for type *R. sagittalis* sp. n. p. 432 pl. vi figs. 16-33 [? figs. 20-22 p. 433—see also *Remopleuridid* gen. et sp. ind.] Ordovician (Middle) U.S.A. (Virginia), **Whittington Bull. Mus. comp. Zool. Harv. 121 8 1959.**

Rondocephalus gen. n. [*Dolichometopinae*] p. 122 for type *R. mirandus* sp. n. p. 123 pl. vii figs. 11-17 Cambrian (Lower) U.S.S.R. (Tuva etc.), **Pokrovskaya Trud. geol. Inst. S.S.S.R. 27 1959.**

Rondocephalus range in Altai-Sayan pl. i, **Zhuravleva & Repina.**

Sajanaspis Repina [nom. nud.] range in Altai-Sayan pl. i, **Zhuravleva & Repina.**

Saltaspis recorded from Britain p. 155, **Stubblefield (3).**

Salteria americana Cooper 1953 p. 491 pl. xxviii figs. 9, 12, 14, 17, 18, **Whittington.**

Sanashtyegolia [*Ianashtyegolia* on pl.] Poletaeva [nom. nud.] range in Altai-Sayan p. 182 pl. i, **Zhuravleva & Repina.**

Saratogia Walcott 1916 discussed with diagnosis and relations to *Idahoia* p. 421, *S. fria* sp. n. p. 422 pl. lix figs. 1-11 Cambrian (Upper) U.S.A. (Idaho), **Lochman & Hu J. Paleont. 33 3 1959.**

Saukianda andalusiae R. & E. Richter 1940 pygidium with posteriorly incomplete doublure (considered not a sexually dimorphic character) p. 403 text-fig. 1, **Sáduy.**

Saukiid (undetermined) p. 379, **Rasetti.**

Saukiidae see Olenina.

Sayanella gen. n. [*Dinesidae*] p. 150 for type *Klotziella poletaevae* [poletaevi] Lermontova 1940 lectotype selected [illegitimate] p. 152 pl. ix figs. 14-15 Cambrian (Lower) U.S.S.R. (Sayan & Tuva), *S. bona* [nom. nud.] p. 151, **Pokrovskaya Trud. geol. Inst. S.S.S.R. 27 1959.**

Schmidtella see *Cyphaspis*.

Schmidtellus mickwitzi (Schm.) [reconstruction] text-fig. 3 (1), **Kaljo (1).**

Scutelluidae see Goldillaeninae subfam. n.

Scutelluidae see Thysanopeltidae.

Scutellum see *Bronteus*.

Scutellum costatum Pusch p. 269 pl. i fig. 5, **Pfeiffer.**
Scutellum taimyricum sp. nov. pl. i figs. 10, 10a, **Balashova (1).**

Scutellum taimyricum sp. n. p. 28 [pl. i figs. 10, 10a] Silurian (Lower) U.S.S.R. (Arctic), **Balashova Shorn. stat. paleont. biostrat. 15 [pls. in 14] 1959.**

Scutellum (*S.*) n. sp. [undescribed] p. 102 [for Ferrière 1920-22 pl. i figs. 1-2], *S. (S.)* 3 spp., *S. (Paralejulius)* sp. p. 103, **Pillet (2).**

Scutellum sp. p. 353, **Paulus.**

Selenopeltis buchi buchi (Barr.) p. 48, **Vaněk (3).**

Serrodiscus R. & E. Richter discussed p. 170, *S. cf. speciosus* (Ford) p. 172 pl. xi fig. 1, *S. sibiricus* sp. n. p. 173 pl. xi figs. 2-4, 9, 21, *S. f. granulatus* sp. n. p. 176 pl. xi fig. 18 Cambrian (Lower) U.S.S.R. (Tuva) [*S. communis* p. 35 and *S. asiaticus* p. 171 are apparently misprints for *S. sibiricus*], **Pokrovskaya Trud. geol. Inst. S.S.S.R. 27 1959.**

Shanganella gen. n. [*Incertae sedis*] p. 161 for type *S. lebedevae* sp. n. p. 162 pl. xi figs. 22-23 Cambrian (Lower) U.S.S.R. (Tuva), **Pokrovskaya Trud. geol. Inst. S.S.S.R. 27 1959.**

Shivelicus gen. n. [*Pagetiidae*] p. 180 for type *S. parvus* sp. n. p. 181 pl. x figs. 3, 7, 9-10, 12-13, 15-16 Cambrian (Lower) U.S.S.R. (Tuva, Sayan etc.), **Pokrovskaya Trud. geol. Inst. S.S.S.R. 27 1959.**

Shivelicus range in Altai-Sayan pl. i, **Zhuravleva & Repina**.

Shumardia extensa sp. n. p. 374 pl. lxiii figs. 5-6 Ordovician (Upper) Eire, **Weir Palaeontology** 14 1959.

Shumardia lata n. sp. p. 36, *S. gonioloba* n. sp. p. 38 [nom. nuda] Ordovician China, **Lu**.

Shumardia oelandica Moberg p. 144, **Balashova & Balashov**.

Shumardia pusilla (Sars) listed p. 174, **Henningsmoen**.

Shumardia cf. *pusilla* (Sars) p. 274, **Tjernvik**.

Skemmatopyge tietzei R. & E. Richter p. 105, **Lewowicki**.

Skemmatopyge tietzei R. & E. Richter p. 268 pl. i fig. 4, **Pfeiffer**.

Solenopleura sp. p. 359, **Miroshnikov et al.**

Solenopleurella bella Lerm. p. 798, **Z. A. Zhuravleva** (1).

Solenopleurella porcata sp. n. p. 214 pl. xxvii figs. 33-34, *S. erosa* sp. n. p. 214 pl. xxiii figs. 5-6, pl. xxvii figs. 26-28, *S. diligens* sp. n. p. 215 pl. xxvii figs. 29-31, *S.* sp. undet. p. 215 pl. xxvii fig. 32 Cambrian (Middle) U.S.A. (Arizona), **Resser Publ. Carneg. Instn No. 563** 1945.

Solenopleuropsis marginata angularis Sdzuy p. 116 (pl. 42) fig., **Badillo**.

Solontzella Repina [nom. nud.] range in Altai-Sayan pl. i, **Zhuravleva & Repina**.

Spencia tontoensis sp. n. p. 213 pl. xxiv figs. 23-30, pl. xxv figs. 1-2 Cambrian (Middle) U.S.A. (Arizona), **Resser Publ. Carneg. Instn No. 563** 1945.

Sphaerezochus angustifrons Ang. p. 11, **Männil**.

Sphaerezochus hapsidotus p. 384, *S. pulcher* p. 385, **Whittington**.

Sphaerezochus hisingeri Warburg 1925 p. 308 pl. lxxxiv figs. 5a-b, *S. mirus* Beyrich 1845 p. 308 pl. lxxxiv fig. 6, **Lesnikova & Weber**.

Sphaerezochus taimyricus sp. nov. pl. v figs. 8a-6, **Balashova** (1).

Sphaerezochus sp. p. 1548, **Bordet et al.**

Sphaerocoryphe hübnerei Schmidt 1881 p. 311 pl. lxxxii fig. 12, **Lesnikova & Weber**.

Sphaerocoryphe cf. *thomsoni* p. 204, **Dean** (1).

Staurocephalus aff. *murchisoni* Barrande including *S. globiceps* of Bailly 1862 p. 379 pl. lxiii figs. 2-3, **Weir**.

Staurocephalus sp. Weber 1948 referred to *Ovalocephalus kelleri* gen. et sp. n. p. 1316, **Koroleva**.

Stenochilina spinifera Ulrich p. 383 pl. lii figs. 15-16, **Rasetti**.

Stenopareia avus Holm pl. iii figs. 1-4, *S. borealica* sp. nov. pl. iii figs. 15-19, **Balashova** (1).

Stenopareia avus Holm p. 42 [pl. iii figs. 1-4], *S. borealica* sp. n. Ordovician (Upper) U.S.S.R. (Arctic) p. 43 [pl. iii figs. 15-19], **Balashova** Sborn. stat. paleont. biostrat. 15 [pls. in 14] 1959.

Stenopareia panderi (Barr.) p. 47, **Vaněk** (3).

Stenopareia Clark 1924 so accredited with type *S. intermedius* C. p. 385, *S. pronus* Raymond [not type of *S.*] p. 385 pl. liii figs. 20-24, *S.* sp. undet. p. 377, *S.* sp. p. 379, **Rasetti**.

Strenuavea primaeva (Brögger) p. 521 pl. i figs. 1-9, *S. orlowinensis* (Czarnocki) [sp. n.] neotype [sic] for *Strenuella* o. C. 1927 nom. nud. p. 522 pl. i figs. 10-15, *S. kiaeri* (C.) [sp. n.] for *Strenuella k.* C. 1927 nom. nud. p. 523 pl. i figs. 16a-c Cambrian (Lower) Poland (H. Cross Mts.), **Samsonowicz Bull. Acad. polon. Sci. [sci. chim., etc.] 7 7** 1959.

Strenuavea primaeva pl. i fig. 4 pars, **Samsonowicz** (3).

Strenuella tentatively recorded p. 771, **Orlowski** (1).

Strenuella orlowinensis and *S. kiaeri* Czarnocki see *Strenuavea*.

Strenuella polonica Czarnocki nom. nud. 1927 [sp. n.] neotype [sic] p. 525 pl. i figs. 1-12, *S. cf. lakei* Hupé p. 526 pl. ii figs. 1-3 Cambrian (Lower) Poland (H. Cross Mts.), **Samsonowicz Bull. Acad. polon. Sci. [sci. chim., etc.] 7 7** 1959.

Stygina latifrons Portlock pl. ii figs. 11-12, **Balashova** (1).

Stygina latifrons (Portlock 1843) p. 27, **Balashova** (2).

Symphysops aff. *subarmatus* (Reed) p. 378 pl. lxiii figs. 10-11, **Weir**.

Symphysurina sp. cf. *S. globocapitella* Hintze p. 112 pl. xxi fig. 25, pl. xxii fig. 3, **Berg & Ross**.

Symphysurus angustatus (Sars & Boeck) listed p. 174, **Henningsmoen**.

Symphysurus angustatus (Sars & Boeck) p. 274, **Tjernvik**.

Symphysurus carinatus, *S. subquadratus* p. 76, *S. nanshanensis* p. 88 n. spp. [nom. nuda] Ordovician China, **Lu**.

Symphysurus incipiens Brögger, *S. convexus* Bal. [not seen] p. 144, **Balashova & Balashov**.

Synhomalonotus expansus n. sp. p. 74, *S. concavus* var. *housi* n. var. p. 76 [nom. nuda] Ordovician China, **Lu**.

Symphoria Clarke 1900 considered valid and so dated, *Ecocorycephalus* Reed 1925 and *Neosymphoria* Pillet 1954 objective synonyms p. 472n, **STRUBE in Harrington et al.**

Syspacephalus asperoensis Rusc. discussed p. 9, **Rusconi**.

Szeaspis gen. n. [no family assigned, compared with i. a. *Asaphiscus* and *Anomocare*] p. 207 (229) for type *S. reticulatus* sp. n. for *Asaphiscus* cf. *iddingsi* of Chang 1957 pl. iii figs. 11-16, *S. r.* var. *brevicus* var. n. pl. iii figs. 7-10 p. 208 (230) Cambrian (Middle) China (Shantung), *S. pustulosa* (Endo & Resser) for

Manchuriella p. R. & E. 1937 restr. (pl. 36 fig. 13), *S. centratus* (E. & R.) for *Proasaphiscus* c. R. & E., *S. ? offula* (E. & R.) for *P. o. R. & E., S. iddingsi* (Walcott) for *Asaphiscus* i. W., *S. sp.* for free cheek referred to *Fuchouia quadrata* by R. & E. 1937 (pl. 39 fig. 4 pars) p. 230, **Chang Acta palaeont. sinica** 7 3 1959.

Szechuanella szechuanensis n. gen. n. sp. [nom. nud.] p. 33 **Ordovician (Lower) China, Lu.**

Taenicephalina globula sp. n. p. 424 pl. lvii figs. 34-43 Cambrian (Upper) U.S.A. (Idaho), **Lochman & Hu J. Paleont.** 33 3 1959.

Taenicephalus megalops Kobayashi—some referred cranidia of K. and of Wilson 1954 may belong to *Minkella* gen. n. p. 416, **Lochman & Hu.**

Taimyrraspis gen. n. [Isocolidae] for type *T. taimyrica* sp. n. p. 19 pl. vi figs. 17-24 Ordovician (Middle) U.S.S.R. (Arctic) [see also *Holdenia typa*], **Balashova Sborn. stat. paleont. biostrat.** 14 1959.

Taitzia Resser & Endo referred to *Namanoidae* with probable synonym *Inouyina* p. 223, review of spp. of *T.* p. 225, *T. quadrata* sp. n. Cambrian (Middle) China (Shantung) p. 203 (224) pl. iv figs. 17-18; *T. adrastra* (Walcott) referred to *Levisia*, *T. granulata* Endo provisionally to a new genus p. 226; pygidium attributed to *Aojia longispina* R. & E. 1937 (pl. 47 fig. 2) belongs to *T.* p. 223, **Chang Acta palaeont. sinica** 7 3 1959.

Tannudiscus gen. n. [Opsidiscidae] p. 177 for type *T. tanuolacicus* sp. n. p. 178 pl. xi figs. 16, 19-20 Cambrian (Lower) U.S.S.R. (Tuva), **Pokrovskaya Trud. geol. Inst. S.S.S.R.** 27 1959.

Tatulaspis gen. n. [no family assigned] p. 117 for type *T. princeps* sp. n. p. 116 pl. i figs. 6, 6a Cambrian (Upper) U.S.S.R. (Kazakhstan), **Ivshin Izv. Acad. Sci. Kazakhstan S.S.R. [Geol.]** 21 1955.

Telephina aff. *reedi* (Ulrich) p. 373 pl. lxiii figs. 1a-c, **Weir.**

Tetralichas holmi (Schmidt) 1885 p. 303 pl. lxxx figs. 3a-4, **Lesnikova & Weber.**

Tetralichas taimyricus sp. nov. pl. i figs. 5-6, **Balashova (1).**

Tetralichas taimyricus sp. n. p. 50 [pl. i figs. 5-6] Ordovician (Upper) U.S.S.R. (Arctic), **Balashova Sborn. stat. paleont. biostrat.** 15 [pls. in 14] 1959.

Theodenisia communis (Rasetti) p. 383 pl. li figs. 11-12, *T. sp. undet.* p. 380, **Rasetti.**

Thomondia Harper 1942 referred to Isocolidae, *T. globosa* H. thorax and pygidium described p. 375 pl. lxii figs. 11-15, **Weir.**

Thysanopeltidae Hawle & Corda 1847 preferred to Bronteidae H. & C. or Scutelluidae R. & E. Richter 1955 p. 367, **MOORE in Harrington et al.**

Thysanopeltidae see *Weberopeltis* gen. n.

Thysanopeltis sp. p. 102 [for Ferronnière 1920-22 pl. 1 fig. 3], *T. sp. near speciosa* p. 103, **Pillet (2).**

Thysanopyge see *Thysanopyginae* subfam. n.

Thysanopyginae subfam. n. [Asaphidae] p. 354 for *Thysanopyge*, *Australopyge* and *Zuinaspis*, **JAANUSSEN Treatise on Invertebrate Paleontology Part O** 1959.

Tomagnostus cf. *fissus* p. 17, **Kindle & Whittington.**

Tonkinella shantungensis sp. n. [nom. nud. 1957] p. 208 (231) pl. iv fig. 1 Cambrian (Middle) China (Shantung), **Chang Acta palaeont. sinica** 7 3 1959.

Trachycheilus gen. n. [no family assigned, compared with *Kochina*] p. 212 for type *T. typicale* sp. n. p. 213 pl. xxv fig. 9 pars Cambrian (Middle) U.S.A. (Arizona), **Resser Publ. Carneg. Instn No.** 563 1945.

Tretaspis cf. *bucklandi* (Barrande) 1846 p. 275 pl. lxxix figs. 6a-c, **Lesnikova & Weber.**

Tretaspis cf. *ceriodes* (Angelin) p. 207ff., *T. aff. kiaeri* Störmer p. 208, **Dean (1).**

Tretaspis nováki Chlupáč referred to *Reedolithus* [quod vide] p. 215, **Vaněk (1).**

Tretaspis sagenosus sp. n. including *T. reticulatus* of Whittington 1941 *partim* (pl. 6 figs. 30, 34, 35) & *Ampyzina elegans* Cooper 1953 *partim* (pl. 4 figs. 13, 17) morphology and ontogeny described p. 448 pl. xxiv figs. 1-19, pl. xxv figs. 1-6, pl. xxvi figs. 1-17, pl. xxvii figs. 1-25, pl. xxviii figs. 1-8 Ordovician (Middle) U.S.A. (Virginia), **Whittington Bull. Mus. comp. Zool. Harv.** 121 8 1959.

Triarthropsis nitida Ulrich p. 382 pl. iv figs. 6-13, *T. limbata* sp. n. Cambrian (Upper) U.S.A. (Maryland) p. 382 pl. lii figs. 1-8, **Rasetti J. Paleont.** 33 3 1959.

Triarthrus sp. aff. *becki* p. 89n, **Thorsteinsson.**

Trilobita Walch 1771—type of class designated *Dalmanites* Barrande 1852 p. 172, **HARRINGTON, HENNINGSMOEN & MOORE in Harrington et al.**

Trilobus punctatus Brönnich 1781 suppressed p. 43, **Opinion 537.**

Trimercephalus see *Phacops.*

Trinodus elpethi p. 384ff., **Whittington.**

Trinodus glabratus var. *kirgizica* Weber 1948 p. 274 pl. lxxv figs. 1a-c, **Lesnikova & Weber.**

Trinodus mobergi Tjernvik from Norway p. 174, **Henningsmoen.**

Trinodus ? sp. p. 371 pl. lxiii figs. 9a-b, **Weir.**

Trinucleoidae—ontogeny discussed p. 439, **Whittington.**

Trinucleoidae see *Collis* gen. n.

Trinucleoidae—morphology and ontogeny discussed with diagnosis p. 437, **Whittington.**

Trinucleus alfredi Želízko probably referable to *Reedolithus* and probably a synonym of *R. nováki* (Chlupáč) p. 215, **Vaněk (1).**

Trinucleus concentricus of Baily 1862 referred to *Novaspis* aff. *albida* (Reed) p. 371, **Weir.**

Triplagnostus cf. *hybridus* p. 12, **Kindle & Whittington.**

Trochurus Beyrich 1845 discussed p. 144, *T. speciosus* B. 1845 neotype selected and figured [excluding record of Hawle & Corda 1847 and with synonyms after Barrande 1852 including tentatively *Dicranopeltis* ? *balkhaschicus* and *D. ? turensis* Weber 1951] p. 145 pl. viii fig. 10, pl. ix figs. 1-9, pl. x figs. 1-7, pl. xi figs. 1-3, text-figs. 35-38, **Vaněk (2).**

Tropidopyge Harrington & Kay 1951 discussed and family reference uncertain p. 160, *T. broeggeri* (Moberg & Segerberg 1906) p. 159 pl. i figs. 5-7, *T. stenorhachis* H. & K. may not be congeneric p. 160, **Henningsmoen**.

Tropydocoryphe sp. [for Ferronnière 1920-22 pl. i fig. 9.] p. 102, **Pillet** (2).

Tumulina Repina [nom. nud.] range in Altai-Sayan pl. i, **Zhuravleva & Repina**.

Tuvaaspis minutus [nom. nud.] p. 28 apparently a misprint for *Tuvanella gracilis* gen. et sp. n. [quod vide], **Pokrovskaya**.

Tuvanella gen. n. [Aldonaidae] for type *T. gracilis* sp. n. p. 95 pl. viii figs. 7, 11 Cambrian (Lower) U.S.S.R. (Tuva) [*Tuvaaspis minutus* p. 28 is apparently a misprint for *Tuvanella gracilis*], **Pokrovskaya** Trud. geol. Inst. S.S.S.R. 27 1959.

Tuvanella range in Altai-Sayan pl. i, **Zhuravleva & Repina**.

Twinia tannu-olae nov. gen. sp. nov. [nom. nud.] [Corynexochidae] p. 16, O. K. **POLETAeva** in **Pokrovskaya**.

Typloproetus hemisphaericus sp. n. p. 266 pl. i figs. 1-2 Devonian (Upper) Germany (Thuringia), **Pfeiffer** Geologie 8 3 1959.

Typloproetus subcarintiacus R. & E. Richter p. 104, **Lewowicki**.

Ulrichaspis text-fig. 3b, **Kindle & Whittington**.

Uralichas Delgado 1892 discussed p. 101, *U. avus* (Barrande 1872) restr. [non pl. 5 fig. 23, pl. 6 figs. 25-26, pl. 10 fig. 17 to *Lichas incola*] lectotype chosen and figured excluding record of G. & H. Termier 1950 and with synonym *Autolozolichas reedi* Phleger p. 102 pl. ii figs. 1-6 text-figs. 6-9, *U. giganteus* (Klounček 1916) nov. emend. lectotype chosen and figured p. 107 pl. i figs. 1-2, **Vaněk** (2).

Urbanaspis gen. n. [no family assigned] p. 118 for type *U. notabilis* sp. n. p. 119 pl. i figs. 9, 9a Cambrian (Upper) U.S.S.R. (Kazakhstan), **Ivshin** Izv. Acad. Sci. Kazakhstan S.S.R. [Geol.] 21 1955.

Varvia longicauda Tjernvik from Norway p. 174, **Henningsmoen**.

Vřákainella see *Oryctocephalus*.

Vogdesia nordica sp. n. p. 37 pl. ii figs. 5-6 Ordovician (Middle) U.S.S.R. (Arctic), **Balashova** Sborn. stat. paleont. biostat. 14 1959.

Volkops gen. n. [Phacopinae] p. 31 for type *V. volki* sp. n. with genal and pleural spines Ordovician Germany (Thuringia) p. 35 pl. i figs. 1a-i, k, pl. ii figs. 1l-q, 2a-d (reconstructions), **Struve** Senckenbergiana leth. 40 1-2 1959.

Waribole see *Cyrtosymbole*.

Weberides mucronatus (McCoy 1844) from Czechoslovakia considered to show sexual dimorphism p. 255 pl. i figs. 1-4, pl. ii figs. 1-4, pl. iii figs. 1-4, pl. iv figs. 1-4 text-figs. 1-2, 4, **Rehoř** & **Rehořová**.

Weberopeltis Maksimova 1957 [gen. n.] [Thysanopeltidae] p. 372 for type *Bronteus aculeatus* Weber 1945 text-fig. 281, R. & E. Richter Treatise on Invertebrate Paleontology Part O 1959.

Wilbernia pero (Walcott) p. 422 pl. lx figs. 15-18, **Lochman & Hu**.

Wutingaspis Kobayashi 1944 referred tentatively to *Doleroleninae* p. 401, **Sdzuy**.

Youngia uralica Tchernyschew 1893 p. 309 pl. lxxxiv figs. 4a-b, **Lesnikova & Weber**.

Yuepingia [sic] Lu 1956 see *Niobinae* subfam. n.

Yunnanoccephalus Kobayashi 1936 referred tentatively to *Bigotinae* p. 401, **Sdzuy**.

Zacanthoides wolapai sp. n. p. 194 pl. xx figs. 19-20 partes, Z. sp. undet. p. 194 pl. xix figs. 34-38 Cambrian (Middle) U.S.A. (Arizona), **Besser** Publ. Carneg. Instn No. 563 1945.

Zacanthoides sp. p. 84, **Bright**.

Zbirovia see *Ectillaeninae* subfam. n.

Zbirovia vaněki Šnajdr p. 48, **Vaněk** (3).

Zdicella see *Ectillaeninae* subfam. n.

Zelizskella [sic] *deshayesi* (Barr.), Z. sp. p. 47, **Vaněk** (3).

Zuninaspis see *Thysanopyginae* subfam. n.

Pygidia (resembling *Phillipsia scabra* Woodward) p. 177, **Caldwell**.

Pygidium gen. and sp. undet. Cambrian (Upper) U.S.A. (Idaho) pl. lx fig. 22, **Lochman & Hu**.

Subgen. A see *Calyptaulax*.

Trilobite fragments p. 37ff., **Thorsteinsson**.

Unassigned pygidia nos. 9 and 10 of Rasetti 1945 belong to *Plethometopus* (possibly *P. armatus*), Unassigned pygidium no. 7 of R. 1945 referred to *P. obtusus* p. 383, **Rasetti**.

Undetermined pygidium No. 1 p. 118 pl. xxi fig. 7, Undetermined pygidium No. 2 p. 118 pl. xxi fig. 16 Ordovician (Lower), **Berg & Ross**.

TRACE-FOSSILS POSSIBLY ATTRIBUTABLE TO TRILOBITES

Protichnites Owen 1852 discussed p. 7, *P. sp. T.* [? Cambrian or ? Ordovician] Australia (W. A.) p. 9 pls. figs. 2-7, **Öpik** (2).

Trilobite trails pl. v fig. b, pl. vii fig. a, **McKee**.

IV.—ERRATUM

Z. R. 93 11 (for 1956).

The genera *Acrocephalaspis*, *Kujandaspis*, *Kujandina*, *Ninaspis*, *Olenella*, *Pedinocephalus*, *Tatulaspis*, *Urbanaspis* and their respective type species, although described as new in N. K. Ivshin's monograph of 1956, were first validly published by Ivshin in Izv. Acad. Sci. Kazakhstan S.S.R. [Geol.] 21 1955, and date therefrom.

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